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PLANNING INTEGRATED RESOURCE MANAGEMENT IN ALBERTA

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PLANNING INTEGRATED RESOURCE MANAGEMENT IN ALBERTA

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PREFACE

Part of Environment Canada's mandate is to undertake research and provide advice on the national land resource. The Land Use Policy and Research Branch of the Lands Directorate helps fulfill this mandate through a wide range of land-related research activities. This is the first of a series of studies that analyses and assesses selected land planning instruments.

Most land planning is performed by provincial or municipal authorities therefore it is their planning implements that will be most frequently selected for study. The essential provincial and municipal cooperation and assistance is invariably and generously provided.

The series of studies will contribute to the spread and improvement of useful planning instruments by informing Canadian land and resource planners and other interested Canadians, most of whom would not otherwise be able to closely examine the selected implements.

ABSTRACT

Alberta's Integrated Resource Management System (IRMS) has developed within the provincial resource management context of multiple agency responsibility. Initially introduced in response to environmental concerns about Alberta's eastern slopes, the IRMS has evolved into a province-wide, hierarchial, systems approach to resource and land management.

The IRMS includes several government agencies in its planning and implementation stages. Consequently, a complex decision-making mechanism has been created to link the planning team resource decisions to those of the Economic Planning and Resource Development Cabinet Committee through a hierarchy of decision-making mechanisms representing headquarters and regional bureaucracies of the agencies of several provincial government departments.

Coordination and consensus decision-making are key achievements of the IRMS.

Early emphasis on the direct application of an activity/zone matrix at the regional level of planning has been altered to place greater emphasis on flexible guidelines. Currently, pragmatic application of integrated management focuses on the sub-regional and local plans. Sub-regional planning has been most fully developed and is representative of the IRMS planning approach.

Case studies of two sub-regional plans reveal the coincidental development and application of the IRMS planning techniques decision-making structure and policies. Major planning tools are ecological land classification, the resource management area concept, consensus decision-making and the financial evaluation of the final plan.

ACKNOWLEDGEMENTS

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I would like to offer special thanks to Susan Calp of the Alberta Forest Service (AFS) who first introduced me to the IRMS, to Les Cooke and Ed Wyldman of the Resource Evaluation and Planning Branch (REAP) who provided key support for the study, and to John Brownlee, REAP, Craig Rose, AES, and Niel Van Oise, REAP, who provided important support in the regional offices visited.

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All omissions and errors of this report are mine alone.

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1. INTRODUCTION

1.1 The Subject

The goal of the Lands Directorate, Environment Canada is to promote and facilitate wise land use in Canada. Towards this end, specific land planning tools utilized by Canadian land and resource managers are being identified and in concert with the managers, documented and reviewed in terms of effectiveness. The results are published for the information and use of land resource managers, practitioners and the interested public.

The objective of this report is to examine Alberta's Integrated Resource Planning System (IRPS), document its structure and application, and evaluate its implementation in a constructive manner that will inform the reader of the system's major strengths, weaknesses, innovations and applications.

1.2 The Study

In order to evaluate the IRPS it is first necessary to present the reader with a description of the resource management context in Alberta. Alberta contacts underlined the importance of the overall management context to the appreciation of the IRPS and provided considerable documentation and explanation.

The first step taken in the examination of the IRPS itself was to analyse its structural contents and operational design. This was accomplished by collecting and analysing available Alberta government documentation of the IRPS (much of it unpublished) and by interviewing the Alberta government staff responsible for the creation, implementation and coordination of the system. The documentation provided a description of the IRPS in ideal terms. The interviews tempered this conceptualization with the background of practical considerations that determined it present form and content.

This initial step was followed by two case studies designed to document, analyse and evaluate the actual application of the IRPS.

The specific objectives of the case studies were:

1. to document how the IRPS planning process directed planning activities in specific situations;
2. to document how the specific applications influenced the definition of the process itself;
3. to expand on the description and application of the specific planning tools emphasized by the IRPS;
4. to document reactions of the managers and planning agents associated with the case studies to the IRPS; and
5. to produce a balanced evaluation of the IRPS process and products.

The two case studies selected were the Castle River Sub-region and the Jean D'or Prairie Sub-region. The former was selected to be representative of an IRPS Eastern Slopes plan, and the latter to be representative of a IRPS boreal forest plan. Both integrated plans were seen by Alberta planning officials to have brought about significant milestones in the development of the System.

Information on the two selected case studies was collected by interviewing headquarters and regional government personnel employed by numerous agencies who were:

1. responsible for coordination of the specific plans;
2. involved directly in the development of the plan; or
3. involved in the preparations to implement the plans.

In total, 30 individuals from 10 Alberta government agencies were interviewed.

The interviews were informal. They were based on questions regarding the utility and acceptability of the resulting plans themselves and the IRPS processes involved in developing the plans. All those interviewed were given an opportunity to review and comment on the resulting report at the draft stage. This approach succeeded in soliciting candid observations which reflected the honest, if subjective perspectives of the individual and his/her agency or resource.

1.3 The Report

The following section (Section 2) of this report begins with a brief description of resource management in Alberta and the historical development of the concept of integrated resource management in Alberta. This is followed by a description of the ideal form and operation of the IRPS mechanisms and processes in Section 3.

Sections 4 and 5 document the most important events, techniques, methods and products that were used and developed in two specific, representative applications of the IRPS.

Section 6 contains observations which compare the events and developments of the case studies to the description of the process presented in Secton 3, to illuminate the major strengths and weaknesses of the planning system.

PART ONE

- ANALYSIS OF THE THEORY -

2. THE RESOURCE MANAGEMENT CONTEXT

This section of the report outlines the dominant elements of resource management in Alberta and the history of its development. It also illustrates the importance of land planning to the development of Alberta's Integrated Resource Management System.

2.1 Resource Management History to 1973

Resource management and planning programs conducted by the Province of Alberta arise from authority vested in it by the Constitution Act (formerly the BNA Act) and an Act Respecting the Transfer of the Natural Resources of Alberta, May 30, 1930.

Until 1930 the federal Department of the Interior was responsible for the management and administration of Alberta's land resources including the protection of timber, watersheds, wildlife and migratory birds, the regulation of hunting, trapping and fishing, the drainage of wetlands for agricultural use and the irrigation of agricultural land.

In the eastern slopes of the Rocky Mountains three national parks were established by 1911, and the Rocky Mountains Forest Reserve was established and managed (until 1948) by the Dominion Forest Service.

The 1930 Natural Resources Transfer Act and Agreement marked the end of federal dominance of land resource management in Alberta by transferring to the Province control of natural resources, including the land resource itself.

Beginning in 1931 a plethora of legislation required by the new provincial responsibilities established a wide variety of resource management mandates and provincial government departments and agencies to implement them. Major growth in the provincial resource management programs occurred between 1948 and 1951. This growth was facilitated by the creation of three administrative areas in the province, and the creation of the Departments of Lands and Forests and the Department of Mines and Minerals. During this period and the following quarter century of escalating growth and development.

The federal presence in resource management in Alberta continued, in the form of membership on the Eastern Rockies Forest Conservation Board. This Board had an extensive mandate to protect the forest of the eastern slopes and the water supply of the Saskatchewan River system. The inter-governmental and inter-agency cooperation that was required by such an arrangement is credited with the stimulating development of a highly cooperative resource management attitude in the eastern slopes - an attitude that helped spawn integrated resource management and which is now being spread throughout the province.

In 1973, when the Eastern Rockies Forest Conservation Board was dissolved, there were several provincial agencies with resource management mandates, many of which overlapped. The two dominant agencies were the Department of Mines and Minerals and the Department of Lands and Forests. The significance of the former derives from the great financial benefits of the development of coal, oil and gas. The significance of the latter derives from the mandate of the Alberta Forest Service (AFS) to manage the non-agricultural Crown lands of Alberta knowns as the Green Area.

In 1948 the public lands of the province were classified for administrative purposes into 'White', 'Green' and 'Yellow' Area lands (Map 2.1). White lands are predominatly agricultural lands of the first settled areas. Yellow lands are the lands of the Peace River identified for settlement. Green lands are predominantly forest lands maintained for multiple use purposes.

White and Yellow lands, not required for conservation, recreation, wildlife, habitat, forestry and other purposes may be used for other uses. Land within the Green Area is not available for agriculture (other than grazing) and is reserved predominantly for forest production, water, recreation, fish and wildlife and industrial resource development.[1]

Because of its land management mandate the AFS was responsible for many resource management activities besides timber management. The most important of these were grazing and recreation. The full diversity of their responsibility was reflected in the Order-in-Council No. 371/72 of March 7, 1972 as follows:

> "... the head of the Forest Land Use Branch shall be responsible for the research, planning, implementation and coordinating management of multiple uses of public forest land".

By 1973 the growth of resource development in Alberta was growing rapidly, especially in oil and gas exploration and especially in the eastern slopes. This growth was evidenced by the increasing difficulty encountered by resource managers in resolving land use conflicts. As shall be described in

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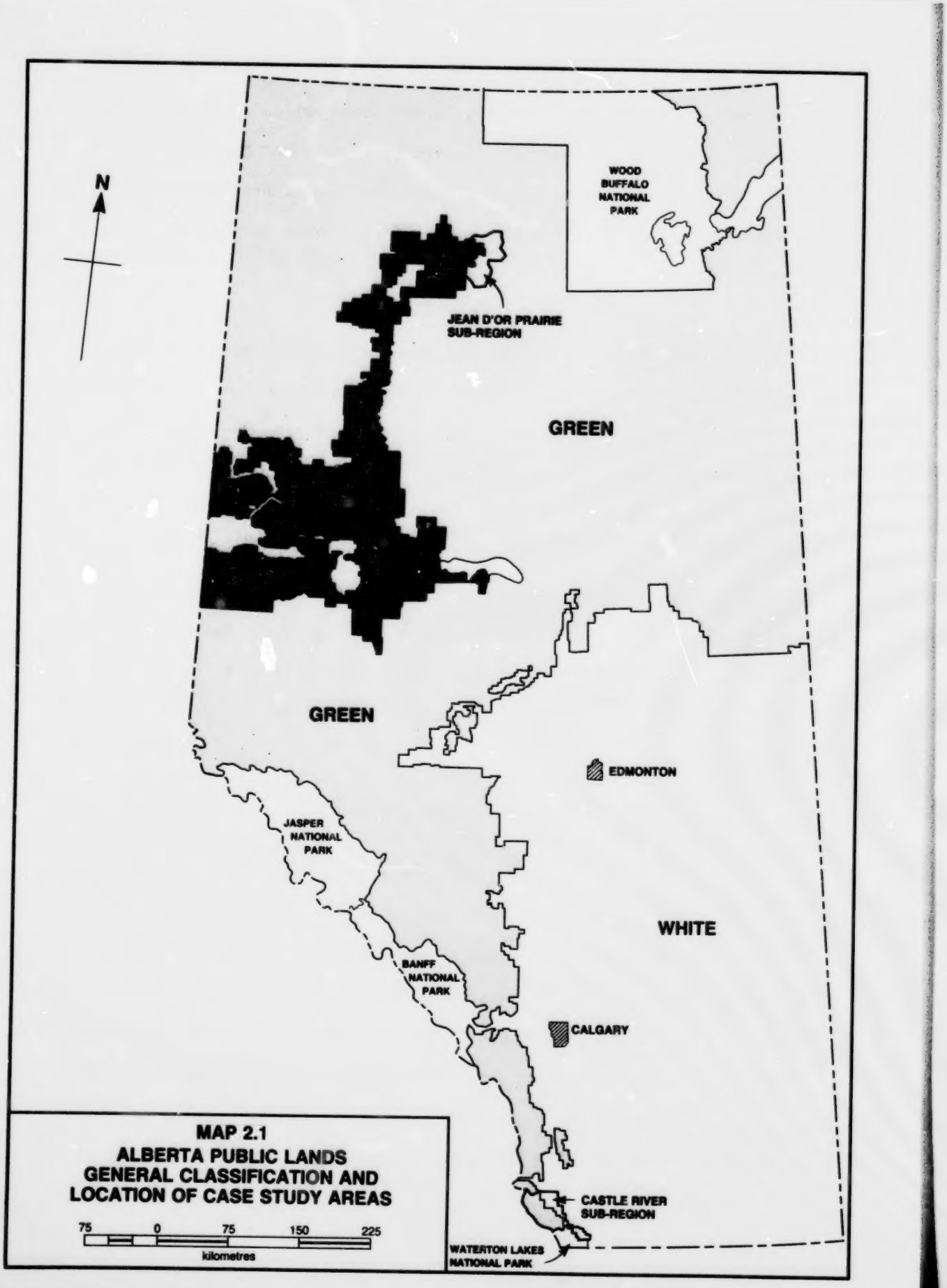
1 Since this was written the Yellow Area zoning has been eliminated and is now part of the White Area.



MAP 2.1
ALBERTA PUBLIC LANDS
GENERAL CLASSIFICATION AND
LOCATION OF CASE STUDY AREAS

subsection 2.3, several efforts were initiated in the early seventies to resolve these conflicts and properly manage the growth and impacts of resource development.

2.2 Recent Resource Management Organizational Change

Several organizational changes in Alberta's provincial government have occured since 1973 and appear to have contributed to the establishement and definition of the concept of integrated resource management in the province.

First, in 1975 the Department of Energy and Natural Resources (ENR) was create4d. This new department reunited the mines and mineral programs with the lands and forest programs (non-renewable with renewable) under the same minister.

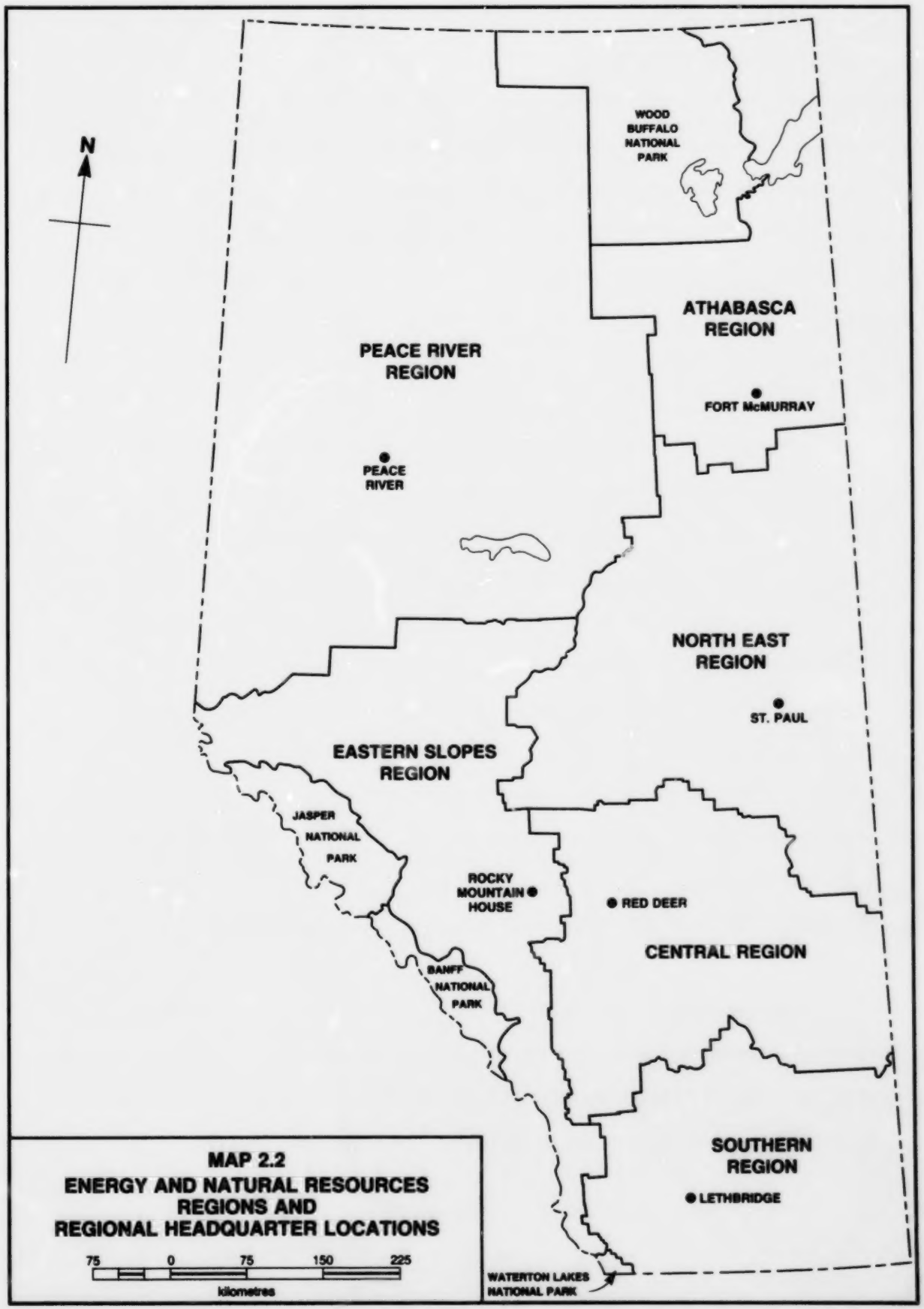
Second, in 1976 a service agency was created within the renewable half of ENR. This new division, the Resource Evaluation and Planning Division (REAP), was assigned the role of coordinating agent for provincial resource management. The importance of REAP's role seems to have grown since its creation. In 1980 the status of the chief executive office of REAP was raised from Executive Director to Assistant Deputy Minister. This new status is equivalent to the senior offices of the major renewable (and non-renewable) resource divisions (agencies) of ENR.

Third, in 1978 the Fish and Wildlife Division was added to the renewable resources part of ENR by way of a transfer. It was transferred from the Department of Parks and Recreation. While this tended to restrict the mandate of Parks and Recreation to specific sites it completed the renewable resource management spectrum of ENR.

Fourth, ENR has adopted a regionalization policy that gives considerable autonomy and management responsibility to regional staff. As illustrated in Map 2.2, the entire province of Alberta is divided into 6 regions, each with a regional headquarters. Each regional headquarters provides office space for the ENR regional directors and much of their staff. The one exception is the AFS regional staff. AFS staff are much more numerous and more densely distributed in the regions. Due to their earlier regional presence they tend to be physically removed from the other ENR staff.1

The creation of the department of ENR at the height of resource use expansion and conflict in Alberta appears to have marked the initiation of a concentrated effort to rationalize and coordinate resource management in that province. The creation, in the next year, of the REAP Agency and it's subsequent rapid growth provided the new "super resource department" with a new, unaligned organization to help coordinate resource planning activities and break the long established pattern of single resource sector agency fealty.

1 Also strongly regionalized is the Water Management Branch of the Department of Environment. Similarly the Department of Agriculture has regional district agriculturalists and a significant regionalised program. The regions of ENR, Environment and Agriculture are not co-terminous.



MAP 2.2
ENERGY AND NATURAL RESOURCES REGIONS AND REGIONAL HEADQUARTER LOCATIONS

The concentration of renewable resource agencies under the Associate Minister of Public Lands and Wildlife and his deputy minister appear to have minimized the natural resistance to change that one would expect the introduction of significant coordination of management activities to cause. Resistance to the new system of resource management integration seems to have been focussed on identifiable technical problems which could then be addressed and resolved. Strong inconsistent senior level reinforcement of the decision to introduce integrated resource management would account for the channelling of the resistance in this way.

Although integrated resource management in Alberta involves many resource agencies outside of ENR the majority of the land based resource agencies reside within ENR and constitute a strong manageable core with which to initiate the integrated resource management program.

Paradoxically while this core of agencies appears to be the strength of the management system structure it also seems to be its greatest weakness. Members of agencies not included in the core group are prone to feeling that their roles in integrated management are as less than equal participants and relatively uninfluential when compared to ENR members. It is as a result, an important task of the planning, directing and controlling aspects of integrated management to counter this basic structural problem.

The overlapping responsibilities of agencies for the management of particular resources and their development is an important aspect of the "we - they" problem of integrated resource management. Table 2.1 illustrates the extent of the overlap and the legislation and agencies involved.

Table 2.1

Existing Natural Resources Legislation and Responsible Management Agencies in Alberta.[1]

RESOURCE	LEGISLATION	MANAGEMENT AGENCY
Air	Clean Air Act	Dept. of Env.
Ecological Resources	Wilderness Areas, Ecological Reserves and Natural Areas Act	Rec. and Parks Dept. and E&NR (Public Lands)
	Provincial Parks Act	Rec. and Parks Dept.
	Public Lands Act	E&NR (Public Lands)
Fisheries	Federal Fisheries Act	Enforced by E&NR (F&W)
Forage (Range)	Forests Act	E&NR (AFS)
	Forest Reserves Act	E&NR (AFS)
	Public Lands Act	E&NR (Public Lands)
	Wildlife Act	E&NR (F&W)
	Dept. of the Env. Act	Dept. of Env.
Forests (Timber)	Forests Act	E&NR (AFS)
	Forest Reserves Act	E&NR (AFS)
	Forest and Prairie Protection Act	E&NR (AFS)
	Dept. of the Env. Act	Dept. of Env.
Historical Resources	Historical Resources Act	Dept. of Culture
	Provincial Parks Act	Rec. and Parks Dept.
Land	Public Lands Act	E&NR (Public Lands)
	Planning Act	Dept. of Mun. Affairs
	Land Surface Conservation and Reclamation Act	Dept. of Env.
	Numerous Acts which apply in specific areas (e.g. Forest Reserves Act, Special Areas Act, etc.)	Various Agencies
Mineral Resources	Mines and Minerals Act	E&NR (Min. Resources)
	Coal Conservation Act	ERCB
	Energy Resources Conservation Act	ERCB
	Oil and Gas Conservation Act	ERCB
	Gas Resources Preservation Act	ERCB
Recreation Resources	Provincial Parks Act	Rec. and Parks Dept.
	Forest Act	E&NR (AFS)
	Forest Reserves Act	E&NR (AFS)
	Public Lands Act	E&NR (Public Lands)
Soil	Soil Conservation Act	Dept. of Agric.
Tourism Resources	Dept. of Tourism and Small Business Act	Dept. of Tourism and Small Business
Water	Clean Water Act	Dept. of Env.
	Water Resources Act	Dept. of Env.
	Forest Reserves Act	E&NR (AFS)
	Ground Water Control Act	Dept. of Env.
Wildlife	Wildlife Act	E&NR (F&W)
	Provincial Parks Act	Rec. and Parks Dept.
	Wilderness Areas, Ecological Reserves and Natural Areas Act	Rec. and Parks Dept. and E&NR (Public Lands)
	Agricultural Pests Act	Dept. of Agric.
	Stray Animals Act	Dept. of Agric.

[1] This table is not all inclusive.
ERCB = Energy Resources Conservation Board

Regionalisation, particularly that of the department of ENR, has added to the vertical integration problems of resource management coordination. This organisational aspect of management must also be addressed by planning, direction and control aspects of integrated management.

2.3 The Development of Land Planning Methodologies in Alberta

Alberta resource agencies participated actively in the development of CLI capability ratings during the 1960's. They entered the 1970's with many planning ideas to be tested and applied in land use conflict resolution situations.

In 1970 the AFS began a six year study. The Land Use Branch designed and conducted the **Foothills Resource Allocation Study (FRAS).** This theoretically oriented study attempted to utilize the CLI data as a total in the allocation of lands for resource uses. It produced 26 plans for the Rocky Mountain Foothills area. Only AFS resource managers were involved in this study.

The Hinton/Yellowhead Study 1970-1973, was undertaken by the Department of Municipal Affairs. It also utilized CLI data. It was directed toward the allocation of land uses along the Edmonton-Jasper highway west of Edson. Although unofficial communication between members of this study and the Foothills Resource Allocation Study (FRAS) did occur they ware otherwise not related and did not share their planning experience.

Land use allocation problems arising from resource conflicts under multiple use resource management were referred to the **Land Use Allocation Committee (LUAC).** This inter-agency committee was responsible for the unbiased resolution of land use related conflicts between the AFS, Public Lands, Provincial Parks and Wildlife.

CLI data was extensively used by LUAC. However, by the end of its term the committee had decided that the use of biophysical data was more use in land allocation decision-making.

The great pressure placed on the eastern slopes by the resource developers and the high visibility and public interest in the area resulted in **The Environment Council of Alberta (ECA) Hearings on Land Use and Resource Development in the Eastern Slopes (1972-1974)** being initiated on the subject. Provincial government involvement in the Hearings was extensive. An interdepartmental committee, the Conservation and Utilization Committee acted as liaison agent between the Planning Commissions which prepared documentation for the hearings.

The ECA was successful in bringing together, with the help of the Conservation and Utilization Committee, the findings and experiences of the FRAS, Yellowknife/Hinton Studies and the LUAC. ECA hearing recommendations centered on the proposal that the government adopt an integrated resource management approach to the preparation of policy using the land planning experience and data that had been developed by the studies.

The government of Alberta accepted the ECA recommendation and in 1975 established the Eastern Slopes Interdepartmental Planning Committee to prepare **A Policy for Resource Management of the Eastern Slopes.** The departments of Environment, Recreation and Parks, Municipal Affairs, Tourism & Small Business Transportation and Energy and Natural Resources (which chaired the Committee) were represented on the Committee.

The product was basically a land use plan prepared at the scale of 1:500,000. The resource policy was based on the definition of eight land use zones and associated management guidelines which permitted, restricted or excluded certain generic resource activities in each zone. The definition of these zones was strongly influenced in some parts of the region by the cabinet acceptance of the 1976 coal development policy for Alberta.

The Coal Policy also defined zones which either could or could not be developed. A qualitative difference existed between the coal and resource policy zone types however. The Coal Policy zone boundaries were based on precise legally defined exploration rights while the resource management zones were based on broadly defined small scale biophysical interpretations of Ecological landscape data. Also, the resource management boundaries were intended to be further refined by larger scale plans.

The mixing of the two types boundaries in the Eastern Slopes Policy initially confused both the resource developers and the resource managers who had to conform to the policy before the larger scale plans were prepared and without methodological guidance on how to interpret the policy for site-specific management issues.

Implementation of the Eastern Slopes Policy has relied on three major approaches:

- direct interpretation by regional managers,
- inter-agency review of resource development proposals (known as Preliminary Disclosures), and
- the completion and use of integrated resource management plans.

Although there were initial difficulties in applying the zones appropriately, especially along the boundaries where local variations needed to be taken into account, local managers now can apply the resource policy appropriately. Experience and the development of the other two implementation approaches have cleared up misunderstandings and provided the guidance necessary to interpret the policy properly.

Inter-agency review of the preliminary disclosure of industry project intentions provide both industry and resource managers with information and suggestions. Potential problems are noted and possible solutions and alternative locations are suggested whenever appropriate. Development of the preliminary disclosure approach paralleled and contributed to the development of a formal inter-agency referral system used by provincial resource agency managers. In this approach the new Resource Evaluation and Planning Branch acts as coordinator of agency responses to a disclosure.

Integrated resource plans for areas within the Eastern Slopes began immediately, and soon were also being used outside of the foothills.

2.4 Integrated Resource Management

> "In response to changing needs and priorities resource management in Alberta has undergone an evolutionary process, particularly during the past ten years. The provincial government now employs an integrated approach to the management of Alberta's public resources. Integrated resource management is based on the belief that government resource management efforts will be most successful if they are coordinated at all levels within a government.
>
> "Integrated resource management recognizes that the use of any resource inevitably affects the ability to use other resources. Integrated resource management attempts to maximize total benefits to citizens from all resources. In the Alberta context, this concept may be expressed as one that endeavours to optimize use of the provincial resource base to achieve maximum benefits for Albertans, now and in the future". (ENR 1983a)

Integrated resource planning is now systematised to contribute, as the dominant tool, to the realisation of integrated resource management system concept that will direct Alberta resource development and public land management. Widespread acknowledgement of the utility of integrated resource plans appears to have come after being successfully tested on local public grazing reserves. Today over 35 integrated plans have been completed or initiated. More than half of these are for areas outside of the eastern slopes.

The ability of the planning system to integrate the overlapping mandates of the many resource oriented agencies is key to the success of the integrated resource management concept. Horizontal integration of resource management in Alberta begins with the problem of integrating the disciplines associated with each of the resources, to this is added the problem of integrating the mandates of the resource agencies. Similarly, to the vertical integration of the various hierarchical levels of plans is added the integration of the levels of authority and the recent regional orientation of resource management activities. It is necessary that the planning system address all of these aspects of integration. As a result, and because of the way in which the integrated resource management concept was slowly created from the more issue oriented activities, the Integrated Resource Planning System has evolved, improved and adjusted it's form and content. It's development continues to this day.

Integrated resource management exists without being formally recognized or defined by legislation. The resolution of the problem of overlapping jurisdictions that was born of ad hoc legislation is not being directed by more ad hoc legislation. Instead the solution is being allowed to grow and evolve and find acceptance. Although the lines that separate the resource planning tool from the resource management process is frequently difficult to discern it appears that the planning activity itself has remained the focus of activity until quite recently. Now, as significant numbers of plans become complete, plan implementation and the integration of implementation efforts is becoming the focus of activity.

3. THE INTEGRATED RESOURCE PLANNING SYSTEM

3.1 A Structural Overview

3.1.1 Development of planning procedures

Procedures for developing and implementing integrated plans were not firmly established when the Integrated Resource Planning System (IRPS) was initiated. Rather than beginning with a pre-defined, fixed process, procedures were allowed to develop within a general framework. This policy, which allowed planning procedures to be developed and to evolve along with the first plans contributes substantially to the fundamental goal of the IRPS that integrated plans should serve the needs of their dominant users: the resource managers.

The IRPS approach acknowledges that user needs are best understood by the users themselves. The IRPS position is that the land and resource managers must contribute significantly to the creation of the procedures used to develop the plans in order to promote the fulfillment of the resource managers' needs. The trained planners who guide the planning exercise do not simply prescribe planning procedures. Instead they introduce planning techniques to planning teams (composed of resource managers and their peers) and assist the teams to refine these techniques into acceptable and workable planning procedures. The importance of this policy must not be underestimated. It has strongly influenced the basic characteristics of the Integrated Resource Planning System; characteristics which can perhaps be said

to reflect one dominant quality: firm flexibility. The paradoxical term "firm flexibility" is acknowledged by several IRPS participants to appropriately describe the System's basic mode of operation.

Most procedures of the IRPS processes are stabilized and can now be documented. The major undefined procedures are related to implementation and plan revision, procedures near the end of the process.

3.1.2 IRPS Planning principles

The philosophy of the IRPS provides much of the system's firmness. It is founded upon the following six basic principles:

"1. Resource planning should be dynamic and flexible so that it can adapt to changing needs and circumstances. Plans are an aid to decision-making and should be revised as better information or new circumstances warrant. Planning is a continuous, sometimes repetitive process of decision-making.

2. Efficient resource management is dependent upon a rational approach to planning. It requires a logical decision-making process to ensure appropriate action for resolving all types of resource management issues.

3. Integrated resource planning usually involves a team approach in which representatives of relevant resource agencies conduct the actual planning. The active participation of various agencies favours the commitment of these agencies to the achievement of planning recommendations.

4. Integrated resource plans are developed by various land and resource experts in consultation with each other.

5. Resource planning should be undertaken within a comprehensive framework. Since it involves a progressive refinement of management decisions, a comprehensive framework is needed to facilitate the development of plans at appropriate levels of detail and emphasis.

6. The planning for public lands and resources must involve the appropriate publics in a meaningful way. The products of

this involvement will be better and more acceptable plans and decisions by government."[1]

Principles 1, 2, and 5 are fairly common sound resource management principles. They call for the making of flexible and rational planning decisions in a comprehensive framework all of which contribute to the making of efficient and effective resource management decisions a real world where no individual is totally unbiased and no process is totally rational or apolitical.

There is nothing in these three particular statements of principle, except perhaps for the use of the word "comprehensive", that set integrated resource planning apart from most forms of non-integrated resource planning. A comprehensive framework alone does not make IRPS planning "integrated". Similarly the inclusion of public participation as outlined in principle number 6, although necessary, is not unique to any concept of integrated resource planning.

Principles 3 and 4 identify the integrative aspects of IRPS planning. Use of the "team approach" and the "active participation of various agencies" noted in principle 3 hold real meaning in IRPS planning: shared decision-making. A major emphasis of IRPS planning is placed on the act of planning as a team. For the IRPS this means always attempting to reach decisions by concensus. Clearly this is extremely difficult in high conflict situations. Compromises and concessions are always required and form the basis for

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1 A System for Integrated Resource Planning in Alberta. Resource Evaluation and Planning Division, Resource Planning Branch, Alberta Energy and Natural Resources, page 7.

developing options for assessment and selection. Notwithstanding the difficulties shared, concensus decision-making is emphasized as a key element of integrated resource planning in Alberta.

3.1.3 The IRPS planning framework and integrated plans

Those interviewed indicate that the IRPS was designed around four (4) planning levels. These levels reflect four commonly perceived levels of resource management decision-making:

1. - Provincial
2. - Regional
3. - Sub-Regional
4. - Local

Provincial level integrated planning is the realm of political policy statements established by the elected government of the day. This level of planning is generally not area specific beyond being for the Province of Alberta. It has operated independently of (above) the integrated resource planning system, while naturally having major influence on the direction of the decision-making.

The integrated resource planning system develops integrated plans at the more detailed levels, below the provincial level. An integrated resource plan is a document which records resource management objectives for a defined area and the land use and resource management guidelines deemed necessary to achieve those objectives. The professional planners interviewed indicated that the foundation of each integrated resource plan is the allocation of the land uses in the planning area. The land use allocation offers a meaningful

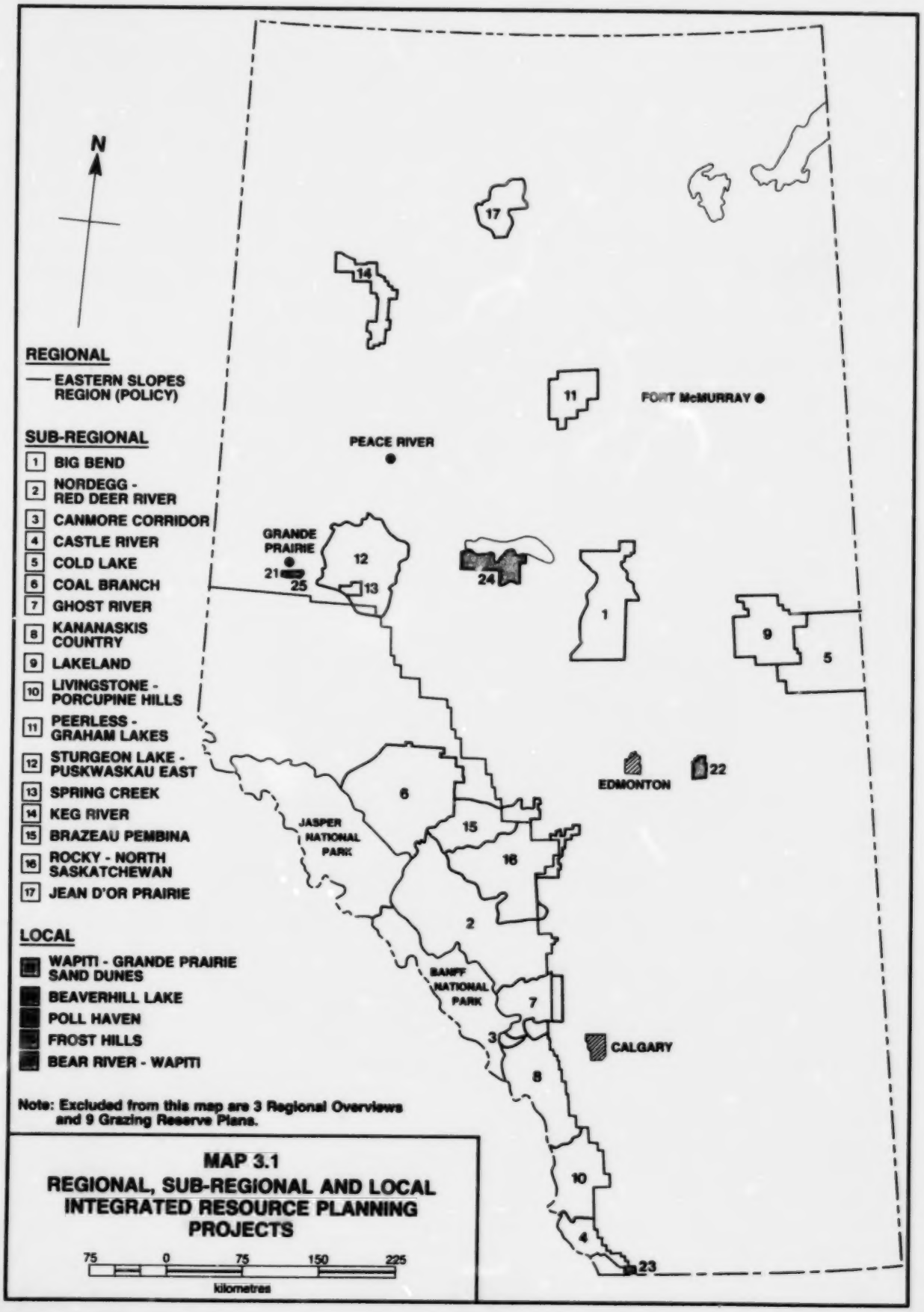
and helpful framework for the expression and integration of the resource management objectives and the resultant management guidelines.

There are several types of integrated plans some of which are located on Map 3.1.

The Eastern Slopes Policy is frequently referred to as a regional plan. The Eastern Slopes Policy establishes general guidelines for the allocation of public land and resources in the region of Alberta. Other regional plans, when completed, may not utilize the zoning method of defining policy that was used in the Eastern Slopes Policy.

Sub-regional plans are area specific plans that are planned at a scale of 1:100 000 and must conform to the general policies of approved regional plans. They may, however, refine the details of the regional plan. Most planning efforts to date have been focussed on the sub-regional plans. Consequently, the methodology developed for them is generally viewed as the archetype for the system.

Local level plans are developed for relatively small areas of land (100 km^2 and less) at a scale of 1:15,000 or greater. These are site specific plans that deal with specific resource conflicts or problems that have required special attention.



Note: Excluded from this map are 3 Regional Overviews and 9 Grazing Reserve Plans.

MAP 3.1

REGIONAL, SUB-REGIONAL AND LOCAL INTEGRATED RESOURCE PLANNING PROJECTS

3.2 Planning Agents and Mechanisms

3.2.1 Agencies participating in the IRPS

Integrated resource planning was initiated as a result of a government decision to integrate resource planning in Alberta. The Department of Energy and Natural Resources (ENR) with its many resource management agencies is the prime user, advocator and coordinator of the planning system. Notwithstanding this, 10 government agencies participate in the IRPS as members on the various IRPS committees. Five of these are Divisions of the Energy and Natural Resources Department:

1. Alberta Forest Service (AFS)
2. Public Lands Division (Lands)
3. Fish and Wildlife Division
4. Mineral Resources Division
5. Resource Evaluation and Planning Division (REAP)

The remaining participants are from five other Alberta government departments:

6. Recreation and Parks (Parks)
7. Agriculture
8. Tourism and Small Business (Tourism)
9. Environment
10. Municipal Affairs

Many other government agencies also participate as "consultative team members". Other Alberta Government Agencies include:

- Alberta Transport
- Alberta Culture, and
- Native Secretariat

Other government and local authority consultants include:

- Regional Planning Commissions
- Improvement District Councils
- Northern Alberta Development Council
- Municipal Governments
- Members of the Legislative Assembly, and
- Parks Canada

Provincial non-government agencies are involved in the planning as public participants. To date the following non-government interest groups have been involved in integrated planning:

- Alberta Fish and Game Association
- Alberta Forest Products Association
- Canadian Petroleum Association/Independent Petroleum Association of Canada
- Alberta Wilderness Association
- Western Stock Growers' Association, and
- Uniform Association

Input from these consultants and public participants offer a broad integrative potential for the planning system.

3.2.2 Forms of participation

Although all members of the senior interdepartmental integrated planning mechanisms participate fully in all major decisions on all integrated plans not all agencies participate on the Planning Teams. Only those ENR agencies with land or resource management mandates appear to be obliged to participate at the Planning Team level. This is due to the commitment of ENR as IRPS implementor and coordinator and expressed in Deputy Minister directives requiring AFS, Public Lands and Fish and Wildlife participation. It is also due, of course, to the land and resource mandate of these agencies.

The decision of other agencies to participate is very much linked to the perceived level of benefit that participation will bring, versus the costs of participation. The success, usefulness and potential results of the process determine whether non-ENR land resource mandated agencies choose to participate. Conversely, the usefulness of the Planning Team products appear to depend on participation.

Planning Team participation takes two forms: "full participation" and "advisory participation". Full participation requires that agency representatives participate in all team meetings, discussions and decisions. Advisory participation requires only specific inputs in the form of reports (usually at the pre-planning stage) and in the form of review of major planning documents produced by the Planning Team.

3.2.3 Major participant agency mandates and motivation

Five of the ten Alberta agencies have a direct mandate to manage land and/or land-based resources. These are the Alberta Forest Service (AFS), the Public Lands Division, Fish and Wildlife, the Recreation and Parks Department, and the Environment Department's Water Resource Branch. Their mandate and motivation with respect to IRPS will be described individually.

The Alberta Forest Service

The Alberta Forest Service (AFS) has the overall responsibility for management of Green Area lands in Alberta. The AFS manages the forest resource of Alberta, is responsible for grazing resource management and

recreation resource management in the Green Area. The AFS also has other land management responsibilities associated with the exploration and development of minerals and reclamation of disturbed Green Area land sites. Because of this dominant role and because of the multiple use of nature of forest management, the AFS has the most direct land resource management experience, the most extensive land-related data collection and the largest regional and operationally oriented staff of any of the IRPS members. The AFS is a major user of most integrated plans. Thus they are well motivated to be full participants (if not initiators) of most plans.

The Public Lands Division

The Public Lands Division is responsible for the management of grazing reserves and other public lands throughout the province used for various industrial and agricultural uses. The utility of the integrated planning process was proven on grazing reserves, most notably the Blackfoot Grazing Reserve. The Public Lands Division has contributed significantly to the widespread acceptance of the IRPS by submitting many of its grazing reserve to integrated planning and by participating on the planning teams of these and other integrated planning projects.[1]

The Public Lands Division is regularly concerned with the disposition of Green Area public lands for agricultural and other private uses. Consequently the Division views the IRPS as an opportunity to contribute to

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1 Nine grazing reserves have been the subject of integrated planning exercises. The nine are <u>not</u> listed on Map 2.3 which locates selected integrated planning projects but they are listed in Appendix A.

the identification lands to be withdrawn from the Green Area for private ownership, use and occupancy.

Because the Division is directly interested in both the management and disposition of public land it is a major user of the integrated resource management plans.

The Fish and Wildlife Division

The Fish and Wildlife Division is responsible for the fish and wildlife resources of all areas of Alberta. It does not have a direct land management mandate and must therefore place its emphasis on influencing the land management practices of other agencies to protect or enhance wildlife and fish habitat. The integrated plans are seen as a very important management tool for this agency. For example, the Eastern Slopes Policy and associated sub-regional plans offered Fish and Wildlife the first major opportunity to exercise influence in this fashion.

The Recreation and Parks Department

The Recreation and Parks Department is generally responsible for the recreation resource in Alberta. It has specific land management responsibilities for areas designated as Provincial Parks and Recreation Sites. Because of it's land management and planning experience Parks has been able to contribute much to the IRPS land use plans despite its relatively small size.

Legislation restricts the Parks departmental mandate to public lands and practice has further restricted it to the less remote and more intensely utilized recreation sites. Recreation and Parks views the IRPS process as an opportunity to identify and protect recreation sites for later development as well as an opportunity to contribute to the planning for the co-ordination of recreation and other resource development in order to optimize the long term value and use of the recreation resource.

The Recreation and Parks Department has developed its own planning system to direct its programs and budgetary planning. Park's planning system is designed to provide a province-wide perspective of the uniqueness, representational capability, relative quality, type, and proximity to market of lands with recreation potential. While Parks takes its direction from its own planning system, and from its Minister, the IRPS system is used to identify regional and provincial recreation development needs and potentials and to support provincial budget allocation to Recreation and Parks. IRPS also provides Parks the opportunity to implement results of their own planning system.

The Water Resources Branch, Alberta Environment

The Water Resources Branch of Alberta Environment has a very strong mandate giving it responsibility for the management of water resources for use by agriculture, industry and municipalities. The importance of this responsibility is recognized in the priority over other resource need that is assigned to it by legislation. This responsibility includes the controlling of stream flow, the creation and maintenance of water reservoirs (frequently

in Green Area valley bottoms) and the protection of water quality. Although not originally obliged to participate, an agreement of intent between the Minister of Environment and the Associate Minister of Public Lands and Wildlife (ENR), Water's participation is always in the advisory mode.

Agencies Without Land Management Mandates

The remaining five IRPS participants have no direct public resource land management mandate. They are either biased towards particular sectors of renewable resource management because of their mandate or are neutral on public resource land planning issues.

The Mineral Resources Division

The Mineral Resources Division is responsible for the disposition of all mineral rights, the maintenance of mineral dispositions and the review, coordination and approval of mineral exploration programs. The Division is responsible for formulation of mineral resource policy, including oil and gas and metallic and quarriable minerals with the exception of gravel. The Mineral Resources Division is a unique member of the IRPS because it is the only IRPS member with an interest in the expansion of the development of non-renewable resources on public lands. The Division is a heavy user of integrated plans since these plans identify where mineral development and exploration may and may not be carried out.

The Department of Agriculture

The Department of Agriculture is primarily interested in the IRPS in order to help identify land with agricultural capability to be transferred from the Green Area to the White or Yellow Areas to permit agricultural use as the dominant resource use activity. Such land transfers are supportive of Alberta Agriculture land use policy goals of maintaining and expanding the Province's agricultural land base. To do this, land is being sought to replace that lost to urban and industrial expansion and to fulfil the public demand for frontier agricultural expansion. Its participation varies from that of a full participant, to advisory and, when appropriate, is non-existent.

Tourism and Small Business

The Tourism and Small Business Department has an interest in promoting the development of recreation resource lands by private entrepreneurs and expanding the tourism industry in areas of the Province outside of the Eastern Slopes region. Consequently, Tourism's particular interest in participating in the IRPS process is to help identify and provide for the development of Green Area recreation lands in the northeastern and northwestern areas of the province.

Municipal Affairs

Municipal Affairs has no resource mandate. It does however have a strong basis in land planning due to its mandate to support or assist

municipalities and Regional Planning Commissions in the preparation of regional and municipal plans under the Planning Act. Municipal Affairs' role in the IRPS is to ensure that the plans produced through the system recognize the legitimate interests of local municipalities and their roles in planning for development of land and in the provision of infrastructure to support resource developments. Because of its planning facilitator role with Municipalities, and its neutrality due to not having any particular land management mandate, Municipal Affairs has been able to act as planning process consultant when required.

The Resource Evaluation and Planning Division, ENR

The Resource Evaluation and Planning Division (REAP) was established in order to facilitate the operation of the IRPS. REAP does not have a resource management mandate and is basically neutral regarding any resource management issue.

Participation of this agency is mandatory. REAP policy states that its agents must remain neutral in regard to resource management conflicts and be seen to perform the sole role of planning facilitator. REAP is also responsible for generating public involvement and for the production of ecological land surveys and integrated plan documentation. It performs many secretariat-like functions to IRPS as well as that of expert planning advisor and facilitator.

3.2.4 IRPS mechanisms: Their membership and primary function

There are four IRPS decision-making mechanisms in which major participating agencies can have membership. Listed in ascending order of authority, they are the Integrated Resource Planning Teams, the Resource Integration Committee (RIC), the Natural Resources Advisory Committee (NRAC), and the Natural Resources Co-ordinating Council (NRCC). Two advisory committees are also involved with the IRPS: The Regional Resource Managers Committee and the Alberta Integrated Planning Advisory Committee. See Table 3.1 and Figure 3.1 for a summary of IRPS mechanism membership and functions characteristics.

A specific Planning Team is created for the preparation of each plan. Whenever possible, members of planning teams are field (line) officers. When an agency does not have local field staff, yet wishes to have a representative on a particular team, a headquarters position is utilized. The primary function of a planning team is to provide locally experienced land and resource technical expertise as the primary design agent of the planning process. The planning team is responsible for the design and production of the integrated plan. The team is immediately responsible to the Resource Integration Committee.

The Resource Integration Committee (RIC), like the other remaining major IRPS mechanism, is a permanent committee. All of the ten major agency participants are represented on RIC by a specific director-level position in each agency.

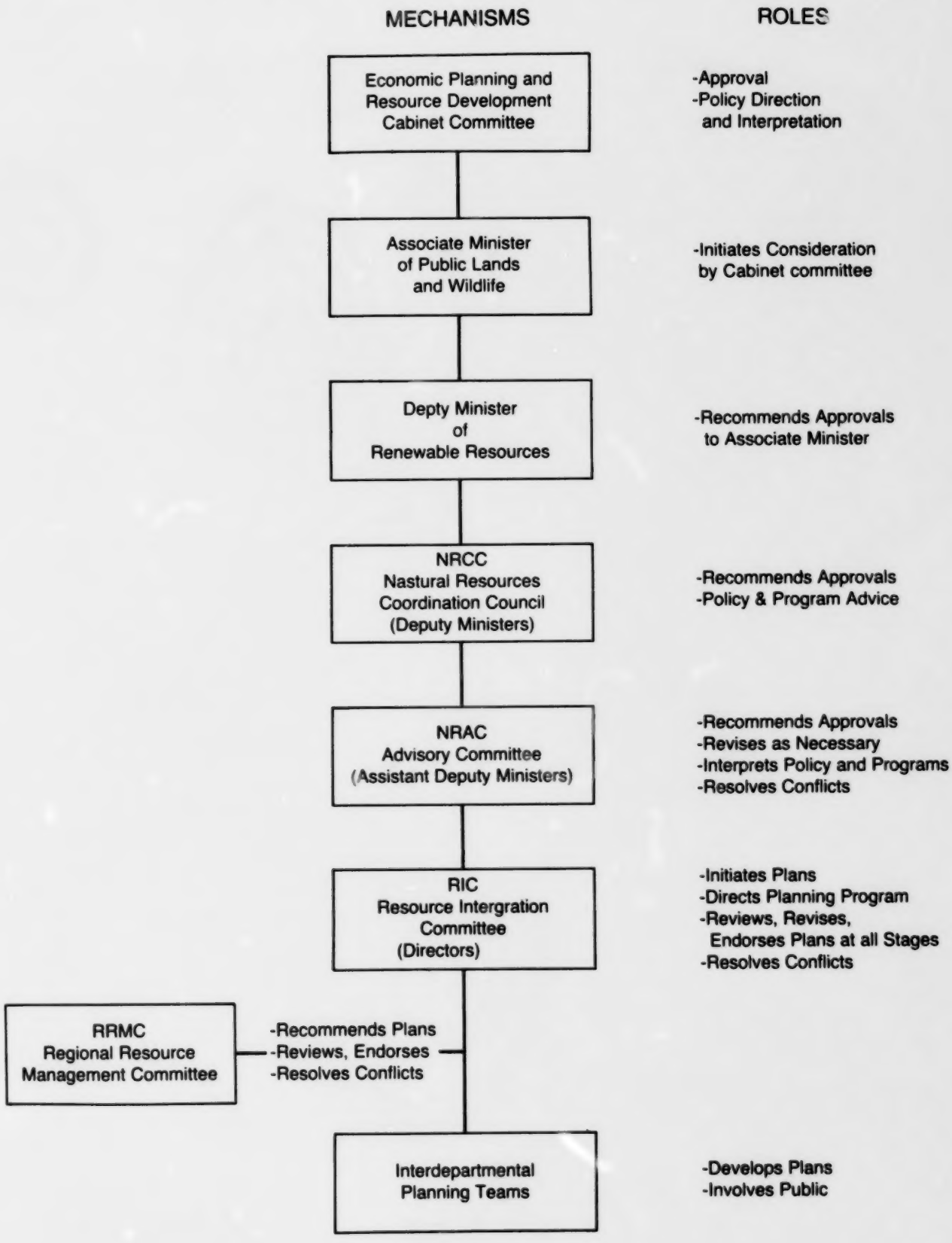

Figure 3.1 INTEGRATED RESOURCE PLANNING APPROVAL PROCESS

Table 3.1

Resource management agency involvement in integrated resource planning mechanisms

DEPARTMENT/AGENCY	EP & RD*	NRCC*	NRAC*	RIC	RRMCs+	PIs+	Con.+
1. Energy and Natural Resources	X	X					
a) Alberta Forest Service			X	X	X	X	X
b) Fish and Wildlife Division			X	X	X	X	
c) Public Lands Division			X	X	X	X	
d) Resource Evaluation and Planning Division			X	X	X	X	
e) Mineral Resources Division			X	X	X	X	X
2. Environment	X	X	X	X	X	X	X
3. Agriculture	X	X	X	X	X	X	X
4. Tourism and Small Business	X	X	X	X		X	X
5. Transportation	X	X	X		X		X
6. Recreation and Parks		X	X	X	X	X	X
7. Economic Development	X	X	X	X			X
8. Municipal Affairs		X	X	X			X
9. Energy Resources Conservation Board		X	X				X
10. Culture							X

* Agencies listed do not represent the full membership of the committee.
\+ Agency involvement varies with plans.

Legend

EP & RD - Cabinet Committee on Economic Planning and Resource Development
NRCC - Natural Resources Co-ordinating Council
NRAC - Natural Resources Advisory Committee
RIC - Resource Integration Committee
RRMCs - Regional Resource Management Committees
PTs - Planning Teams
Con. - Consultants to Planning Teams

(after Fardoe, 1984)

Notwithstanding the ultimate responsibility for the existence and operation of the IRPS by the more senior IRPS mechanisms, the Resource Integration Committee (RIC) plays a major role in the supervision and direction of the integrated planning program and the direction and approval and production of integrated resource plans. Its dominant activities are the establishment of the planning schedule on a year by year basis, the review of Planning Team products and the establishment of direction for the planning team's activities and decisions.

The RIC also addresses other resource management problems or referrals that require significant integration of concerns.

All members of the permanent Natural Resources Advisory Committee (NRAC) are assistant deputy ministers from one of the ten agencies. The primary task of the Natural Resources Advisory Committee is to begin the process of interpreting broad policy statements into plans of action. NRAC reviews implications of major policies on individual agency programs and objectives. NRAC provides basic direction to the IRPS by ratifying planning activities established by the Resource Integration Committee.

The Natural Resources Coordinating Council (NRCC) is a permanent deputy minister (DM) level committee. Its chairman is the DM of the Department of Environment. This IRPS mechanism also exists and functions independently of the IRPS.

Its broader mandate is to advise the government on matters pertaining to the environment and natural resource management in support of government

policy formulation. The NRCC provides the IRPS with policy and program advice and recommends the approval of integrated plans to the Associate Minister of Energy and Natural Resources.

The status of the Deputy Minister of Renewable Resources, Department of Energy and Natural Resources as an independent mechanism (the office is already granted membership in the NRCC) is a consequence of the integrated planning coordination and implementation responsibilities assigned to the Associate Minister of ENR. The function of the Deputy Minister's role in integrated planning is to recommend approval to the Associate Minister of an integrated plan and to provide direction to the development of the integrated planning program. An important product of the operation of this mechanism is the limited participated of the Regional Resource Management Committees in the integrated planning program. A Regional Resource Management Committee (RRMC) exists in each ENR administrative region. Members are Regional Directors (Fish and Wildlife and Public Lands) and the local district supervisor of the Alberta Forest Service. Because of the great importance of these committee to the management of public land and resources, the ENR Deputy Minister has required that the RRMC be consulted during the planning process. The function of this one of these Committees, within the IRPS is to review the plans as they are developed step by step, to resolve conflicts whenever possible, and to advise the Resource Integration Committee (RIC) of its recommendations concerning the integrated plans. However, it does not have decision-making power within the planning process.

The Associate Minister offers policy direction and recommends integrated plans for approval by the Economic Planning and Resource

Development Cabinet Committee. The Economic Planning and Resource Development Cabinet Committee pre-dates the IRPS and exists independently. The Cabinet Committee, as an IRPS mechanism, provides a direct link between the Provincial Cabinet and the IRPS.

Very important to the Integrated Planning System, but almost invisible, is the Resource Evaluation and Planning Division (REAP) of ENR. This Division, among other things, is responsible for the development and coordination of the Integrated Resource Planning System. Members of REAP coordinate Planning Team meetings and RRMC meetings and the technical production of all planning documents and briefing notes. Also the ADM of REAP serves as secretary on a public committee that advises the Associate Minister on integrated planning, and chairs an ENR ADM's Committee concerned with integrated planning. The Director of REAP's Resource Planning Branch serves as chairman of the (Director level) Resource Integration Committee.

Each of the departments participating in IRPS have some difficulty maintaining internal consistency regarding decisions made for an integrated plan and decisions and policy statements made within their own department's planning system. Because of its size, the naturally conflicting nature of resource sectors development and the historical segmentation of management activities, ENR probably has the most inherent difficulties. The intense involvement of the ENR agencies in the IRPS brings out these conflicts and accentuates the inconsistancies. Since integration must occur during the development of the plan and not beforehand in ENR board rooms, the Department must respond to the identified inconsistencies after they have been identified.

Each department has developed an informal internal process of review and assessment which parallels the formal IRPS process. Of these, the ENR process is the most highly structured. REAP encourages all Departments to emulate ENR's internal process.

A major purpose of the internal ENR process is to ensure that the individual planning team members know, understand, and incorporate the various ENR policies into the plan development process decisions. Also the problems that each mechanism has with major policies and with individual planning decisions must be understood by the level mechanisms to guide their work.

The same ENR agents that are part of IRPS mechanisms are agents in the internal process. In the internal ENR process the ENR members of RIC are members of the Resource Manager Directors Committee (RMDC). Likewise ENR's NRAC members are members of the Resource Management Division Heads (RMDH). Integrated planning problems and related policy issues of import are discussed between these two committees and also with the RRMC. Most important, both the Resource Managers Directors Committee and the RRMC have direct access to the Resource Management Division Heads, as illustrated in Figure 3.2 and are able to take unresolved problems to them. Planning issues raised to the ADM level of the Resource Management Division Head Committee can be directly transferred to the senior level interdepartmental committees that review the integrated plans.

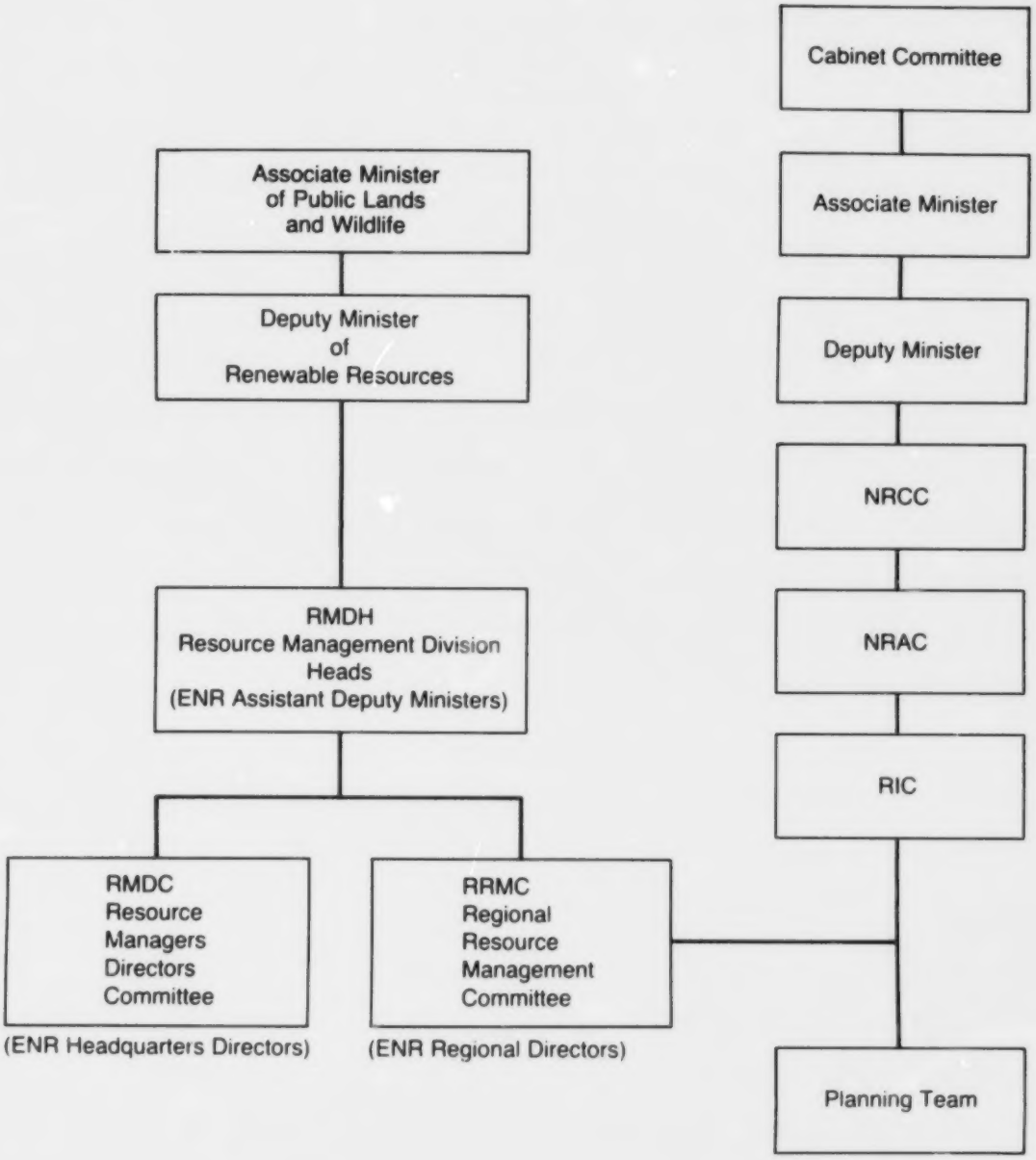

Figure 3.2 INTERNAL ENR REVIEW AND APPROVAL PROCESS

3.3 The Plan Development Processes

This section of the report will describe an idealized version of the plan development process. The plan development process includes: decision-making, public involvement, plan implementation, and plan revision and update.

Generally the process used to develop the sub-regional integrated plans serves as a standard for other levels of IRPS planning. However, variances do occur both between major established sub-regional methodologies and between the methodologies established for the regional, sub-regional and local planning levels. The following description of the process used to develop an integrated plan presents a single generic description of the process.

Development of an integrated plan ready for implementation can be divided into two phases: identification of need, and the preparation, review and approval of the plan.

3.3.1 Identification of Need

The first decisions to be made are those which select the areas to be planned and establish the level of planning to be conducted. Anyone or any group may propose that a plan be designed. These proposals most frequently come from a Regional Resource Management Committee (RRMC), IRPS participating agencies or from the senior management and other actors referring matters to the IRPS for conflict resolution. Especially significant requests presented by the RRMCs often are developed through a decision-making aid developed by

the Resource Evaluation and Planning Branch, ENR. The aid is known as the Situation Appraisal Technique.[1] It helps the RRMCs identify problems and objectives suited to the resolution of those problems. Regional Overviews, regional studies that outline management problems and define proposals for planning activities, are the major products of the Technique.

The Resource Integration Committee (RIC) is the most active decision-making mechanism; it reviews plan proposals and establishes a list of plans to be initiated each year. The major factors which influence the selections are the pressures for an early resolution of a particular land resource conflict and the sound development of the IRPS program. Approval of RIC's recommended list of plans is provided by both the Natural Resource Advisory Committee and the Natural Resources Coordinating Committee. RIC establishes a schedule for each plan and directs the Resource Evaluation and Planning Branch (REAP) to initiate the planning process by co-ordinating the establishment of a planning team for each plan.

3.3.2 Active planning

Active preparation of a plan is built on three fundamental elements of decision-making: information, choice and action. IRPS planning has been variously described as including six or seven steps. In this review of the plan development "implementation" and "review" are isolated from the six steps taken to produce the initial plan. This has been done because the development of sub-regional plans have not yet been implemented or reviewed for updating.

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1 For further information on the situation Appraisal Technique contact the Resource Planning Branch, Resource Evaluation Branch, ENR Alberta.

These steps, with the exception of Data Collection, are fulfilled sequentially. The following six initial plan preparation steps are described here as being part of active planning.

1. Terms of Reference
2. Data Collection and Analysis
3. Policy Alternatives
4. Design Alternatives
5. Draft Plan
6. Final Plan

In order to respond to new issues and decisions that offer new direction or require refinement or clarification, the sequence is often interrupted, steps repeated and the sequence followed again.

3.3.2.1 The **Terms of Reference** step establishes an overall framework for the integrated plan preparation. This framework usually includes the documentation of:

- the purpose of the plan,
- the area subject to the planning exercise,
- the agency concerns and the resource and land use issues,
- the objectives of the plan,
- the roles and relationships of the participants,
- the data requirements and guidelines,
- the proposed schedule for completion of the plan, and
- the decision-making process.

The Terms of Reference document is composed by the planning team in consultation with its advisory participants (non-government organizations and agencies with limited interest in the land area and its resource development) and with the appropriate Regional Resource Management Committee (RRMC). The Terms of Reference document is produced and carried through the review process by REAP. Following approval by the RRMC and RIC, the document is revised by

REAP in accordance to RIC's instructions and returned to the planning team as its official terms of reference.

Within the Terms of Reference document, **the purpose of the plan** relates to the foreseen role of the plan in the management of the public resource lands in general and the integration of resource development in particular. For example, Eastern Slopes sub-regional plans might state that their purpose is to seek and respond to public and resource agency management requirements; to identify and resolve resource management issues related to land use; and to designate specific lands to appropriate uses. It might also state that it is to refine the Eastern Slopes Regional Plan. The purpose of the plan is frequently established by the Resource Integration Committee and usually is usually based on the rationale presented in the initial proposal for the plan.

The area being subjected to the planning process is often precisely defined for the first time in the terms of reference. When available, Regional Overviews are used to identify sub-regional planning areas. In other situations the boundaries are determined by the Team based on information such as ecological land classification boundaries, crown ownership or other jurisdictional or natural boundaries.

A concerns and issues list is developed by directly listing those subjects raised by each team member. For example, the Agriculture Department team member might state that the demand for expansion of agriculture was a concern and that grazing was an issue. The Fish and Wildlife member might

establish the loss of wildlife habitat as a concern and the decline of a specific species as an issue.

The objectives of the plan relate directly to the purpose, the concerns and issues, and the existing policy direction such as the Eastern Slopes Plan. Objectives usually vary considerably from one plan to another. In sub-regional and local plans, decisions taken by the RIC strongly influence the objectives of a plan. Objectives may range from clarification and integration of resource policies and resolutions of concerns, to determination of the where, when and how of land allocation, the recommendation for plan implementation and establishment of a plan review mechanism.

Sometimes there is a great lack of existing policy direction. For example there are, at this time, no integrated regional plans outside of the Eastern Slopes, therefore when developing an integrated sub-regional plan outside of the Eastern Slopes the first task of the planning team is to develop a resource policy direction. To do this it must rely heavily on previous senior management statements and decisions, related studies and new policy direction provided by the senior integrated planning system mechanisms.

Data requirements and guidelines established in the terms of reference help define the roles and relationships of the planning team members. In developing the terms of reference, team members identify available data and data needs. Effective means, limits and cooperative arrangements for the acquisition of the data are then established by the team and documented in the Terms of Reference document by the team co-ordinator.

The terms of reference include two further items: the proposed schedule and the decision-making procedures. **The proposed schedule** is based both on directives from RIC in establishing the planning team and from the knowledge and experience of the team members concerning work and time required to develop a completed plan. **The decision-making procedures** are outlined to ensure that all participants are fully aware of the overall process, their role in it, and the lines of authority and approval.[1]

3.3.2.2 **The Data Collection and Analysis** step was originally a separate scheduled step; it is now an ongoing activity which, subsequent to an initial structured stage, responds to new demands created in the development of the plan. The basic data collected include:

- resource capability (on a sector by sector basis),
- present use,
- potential use,
- use demands,
- current policy, and
- ecological land classification.

Existing data gathered by an agency's ongoing operations is utilized extensively. However, this data is frequently not fully satisfactory, by reason of scale, detail or extent of coverage. Augmentation and the creation of completely new data sets are frequently required.

Since the new plans identified in the spring most data collection (and, when necessary, created) is completed during the first summer season. The team members utilize their agency's full capacity to collect and analyze data.

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1 Special courses have now been established to inform staff of the operation and roles of the system and its participants.

Agency input is generally submitted in the form of background papers which address the subjects identified by the planning team and by means of guidance provided to their representative on the team.

Analysis includes evaluation of the ability of the land to support sustained resource sector production. This evaluation involves the comparison of present uses with the resource demand and the analysis of the potential of particular lands to see how they can support known demands and fulfill the resource sector objectives.

3.3.2.3 The overall process of the **Policy Alternatives Step** has been described as follows:

> "The planning team reviews existing policies and explores possible solutions to the resource management problems identified in the Terms of Reference. Possible directions for resource management are considered and desirable objectives are identified. The team prepares management options with major input and review participation by the involved Regional Resource Management Committee of Energy and Natural Resources. Following endorsement by this committee, the Management Options document is reviewed and endorsed by the Resource Integration Committee. Copies of this document are then forwarded to the Natural Resources Advisory Committee for information."[1]

The basic task of this step is to identify the various resource sector policy positions, resolve the conflicts between policies and reconcile or apply them to the qualities of the land resource of the area concerned. Two land planning tools are used to help the planning team integrate the land

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1 A System for Integrated Resource Planning in Alberta. June 1983. p. 19.

qualities with the resource sector policy objectives and to identify and resolve the policy conflicts. These tools are the resource activity/land use zone matrix and the Resource Management Area (RMA) concepts.

A resource activity/land use matrix establishes the compatibility of defined resource activities and the land use zones that are established for policy purposes. The matrix concept introduced in the Eastern Slopes Policy is quite complex. Those being established for use in boreal area sub-regional planning do not need to be so complex. (The revised (1984) Eastern Slopes matrix is presented in Table 3.2). If a resource activity/land use zone matrix does not already exist (as in cases where no regional plans have been produced) often the first task of the team is to create such a matrix. Each agency representative on the team prepares a proposal for the application of the zone matrix to the planning area or for revision of existing zones according to new information and needs. The team then produces a list of resource sector objectives for the entire planning area. Each team member identifies the problems that the zonation and other sector objectives create for his/her particular resource sector objectives. Resource objective shortfalls that are identified must be quantified as much as possible and alternative proposals and their impact on all resource sectors defined.

An RMA is a sub-unit of a planning area that is used to indicate areas of common management intent. The definition of an RMA is dependent upon the local physical characteristics, the resource development potentials and the overall strategic management context associated with the area (ie. multiple use Green Area as opposed to agricultural development Yellow Area). A broadly defined resource management objective or series of objectives is linked to

Table 3.2

Compatible Activities by Land Use Zone
For the Eastern Slopes (revised 1984)

ZONE / ACTIVITY	1 PRIME PROTECTION	2 CRITICAL WILDLIFE	3 SPECIAL USE	4 GENERAL RECREATION	5 MULTIPLE USE	6 AGRICULTURE	7 INDUSTRIAL	8 FACILITY
Non-motorized recreation	C	C	P	C	C	C	P	C
Fishing	C	C	P	C	C	C	P	C
Hunting	C	C	P	P	C	C	P	X
Scientific study	C	P	P	P	C	C	C	C
Trapping	C	P	P	P	C	C	X	X
Trails, non-motorized	P	P	P	C	C	C	X	C
Transportation & utility corridors	P	P	P	P	C	C	C	C
Primitive camping	P	P	P	C	C	C	X	X
Intensive recreation	P		P	C	C	P	P	C
Off-highway vehicle activity	X	P	P	P	C	C	C	C
Logging	C	P	P	P	C	C	C	P
Domestic grazing	X	P	P	P	C	C	X	P
Petroleum and natural gas exploration & development	X	P	P	P	C	C	C	P
Coal Exploration & development	X	P	P	P	C	C	C	X
Mineral exploration & development	X	P	P	P	C	C	C	X
Serviced camping	X	P	P	C	C	P	P	C
Commercial development	X	X	P	P	P	P	P	C
Industrial development	X	X	P	X	C	P	C	P
Residential subdivisions	X	X	P	P	P	C	P	C
Cultivation	X	X	P	X	P	C	P	P

[C] Compatible Use - Uses that are considered to be compatible with the intent of a land use zone under normal guidelines and land use regulations.

[P] Permitted Use - Uses that may be compatible with the intent of a land use zone under certain circumstances and under special conditions and controls where necessary.

[X] Not Permitted Use - Uses that are not compatible with the intent or capabilities of a land use zone.

each RMA. The resource management objective is defined by a statement which identifies a dominant land use and lists (usually in descending order of priority) other appropriate land uses that can also be supported by the same RMA. The RMAs are important because they represent the most detailed level of policy integration (in the sub-regional plans) and because the objective statements establish the basis for resolving or avoiding future resource conflicts encountered during and following plan implementation.

The team, based on available data, the resource activity/land use matrix, and management experience identifies what appear to be cohesive sub-units that can meet certain resource use and protection demands already established by the team. The team establishes a basic consensus on the ideal allocation of land uses for the entire planning area by defining the boundaries and resource objectives of one RMA at a time until all of the planning area has been included in one RMA or another.

This activity results in a situation in which priorization of resource use for the planning area (beyond what may have been established in a higher level plan) is implicitly built up as a consequence of decisions made by the planning team.

Planning team members review (with the support of their agency's internal resources) the implications of the proposed RMAs and further refine their policy alternative positions accordingly. Whenever possible, alternative policy proposal differences and conflicts are resolved by the planning team. This is achieved through the process of the impact analysis on overall resource sector objectives that occurs both during the planning team

meetings and subsequently during each agency's internal review and as a result of compromises made at Regional Resource Manager Committee (RRMC) meetings which review integrated plan developments. (These meetings are coordinated by a Regional Resource Coordinator who is a member of the Resource Evaluation and Planning (REAP) Branch and who reports to the ADM of that Branch. This follows the "information-choice-action" principle.

Unresolved conflicts are referred to the Resource Integration Committee (RIC) by the planning team through the team coordinator and the REAP organization. The team can recommend a particular choice of alternatives and state the reasons for its recommendation. Such an action helps clarify the issues of import to the RIC members. At this time the RIC decision is referred, through REAP, to the Natural Resources Advisory Committee (Assistant Deputy Ministers) as an information item. Internal agency communications to an ADM who sits on the committee may also occur. Presumably, in the case of highly sensitive policy matters the ADM has been involved in and has declared a position on the policy issues being resolved in the Policy Alternatives Step. Generally speaking, the RIC is the highest level review and approval mechanism that reviews, revises and endorses the product of the policy alternatives step. In doing this, the RIC is responsible to provide direction to the planning team which allows the next planning step to occur.

3.3.2.4. The primary objective of the **Design Alternatives Step** is to establish a series of written management guidelines. These management guidelines prescribe how the integrated objectives can be achieved. These prescriptions are generalized statements designed for the use of the resource managers being faced with day to day, specific resource management decisions.

The statements must contain provisions which will permit potentially conflicting specific resource objectives. In areas with intense and conflicting land uses the guidelines often become quite detailed and contain decisions normally made by operational resource management plans or site specific land management plans. This occurs more frequently in sub-regional planning and local planning due to the higher levels of conflicting uses that need to be accommodated. Sub-regional plans of areas outside the Eastern Slopes tends to contain less detailed guidelines than Eastern Slopes Plans.

The design alternative (management guidelines) statements, together with the previously selected and approved management objectives are relayed to the RRMC and the RIC by REAP as described in the Policy Alternatives step. Occasionally the design statements do not contain a clearly defined element of choice; it is only when the team fails to reach a consensus that optional designs are included. The RIC approves and revises the Design Alternative document as required and the RRMC review comments are noted. The RIC is responsible for directing the Planning Team to proceed and for providing all direction required. If policy issues have evolved to the point that the RIC needs direction itself, it can refer the problem to the Natural Resources Advisory Committee of agency ADMs.

3.3.2.5 **The draft and final plans** follow quickly from the approval of a design option. The team prepares the draft plan which includes a general implementation procedure statement. The draft plan is reviewed and endorsed by the RRMC and by the RIC as described for the previous two planning steps. After endorsement a final plan is produced by the team which incorporates the revisions required. This time following the RIC approval the final plan, in

the form of an executive summary, is sent to NRAC. NRC endorses the policies, requires revision to the plan as necessary, and recommends approval.

When the final plan has been approved by the Assistant Deputy Ministers on the Natural Resources Coordinating Committee, the decision-making process leaves the realm of the bureaucrat and enters that of the politician. Thus, the Deputy Minister of Renewable Resources, who is the highest-level bureaucrat responsible for the management of the crown-owned resource land base recommends the approval of each final plan by Cabinet Committee to the Associate Minister of Public Lands and Wildlife, a politician. The Associate Minister then initiates plan consideration by the Economic Planning and Resource Development Cabinet Committee. The Cabinet Committee then grants plan approval and determines policy direction and interpretation. This concludes development of the final plan.

3.3.3 Plan Implementation

Viewed from a planning perspective plan implementation is one of many planning steps. Viewed from the overall resource management perspective it is a crucial transition phase from planning to operational management. Integrated resource plan implementation procedures have been developed within the ENR department and have been positively received by other agencies.

Implementation focuses on the specific RMA guidelines and the broad management objectives of the sub-region. The broad management objectives and the RMA management intents are viewed as statements of government policy and can only be changed by a formal amendment procedure. Within the context of

these policy statements however the implementation process allows the resource management agencies to develop, modify or delete specific resource objectives and resource management guidelines when necessary to ensure the efficient and effective integration of resources uses and activities. This flexibility eases the task of implementing the plan in the context of current management conditions.

The five major activities of the implementation step are as follows:

1. the reiteration of resource management plan initiatives and identification of associated responsible agencies,
2. the design and documentation of work plans to fulfill initiative objectives,
3. the estimation of initiative costs and benefits, and
4. the recommendation of a major plan review date.

Implementation responsibilities

The major responsibility for implementation has been assigned to the Regional Resource Management Committee (RRMC). The RRMC must perform the above activities, oversee the preparation of the Implementation Document that describes the results of these activities and oversee the relevant operational activities of the responsible agencies.

Membership of the RRMC is expanded to perform the implementation activities by including other agencies regional directors on an ad hoc basis as required by the terms of the plan and the listing of responsible agencies. Also included on the committee is the Regional Resource Coordinator, a regional member of the Resource Evaluation and Planning Branch. This person is responsible for the physical production of the Implementation Document, for

liaison between the RRMC and other planning mechanisms and for the liaison between agencies required to make the implementation step operational. This role is very similar to that of the planning team coordinator.

The Resource Integration Committee (RIC) must resolve conflicts and interpret policy on issues and concerns which cannot be resolved by the RRMC. Similarly the resolution of conflicts and interpretation of policy must be performed by the Natural Resources Advisory Committee and the Natural Resources Coordinating Council when required by circumstance.

Implementation Procedures

The procedure for preparing an Integrated Resource Plan Implementation Document is as follows:

1. The planning team reviews the plan and lists all initiatives or commitments to action included in the plan as well as the lead agency(ies) associated with the delivery of each.

2. The Regional Resource Management Committee reviews the list and selects those items which are likely to be initiated on a priority basis. The time horizon for this priority work program may vary depending on the nature of the particular plan but generally will be five years.

3. The lead agencies for these items prepare draft worksheets with suggested participation, and initiation and completion dates.

4. The RRMC meets to finalize all parts of worksheets and to schedule sub-projects into a priority work program based on a critical path. At this time any agencies who require program enrichment or enhancement in order to meet their objectives in the context of the priority work program should note the nature of their requirement and the implications if it is not met.

5. The RRMC endorsed document is forwarded to the Assistant Deputy Ministers of the RRMC member agencies for review and comment and revisions are made as appropriate.

6. The RRMC establishes the initial major review interval. (This interval serves as a guideline and may be adjusted as necessary).

7. The RRMC approved implementation document is forwarded to the Resource Integration Committee for information.

The worksheet referred to in point 3 guides the RRMC by providing prompts for certain types of information required in the process. These include prompts which guide the categorizing of plan components into operational management terms, prompts which guide the generation of and information necessary for completing the major implementation step activities, information needed to justify proceeding with activities required by the plan and for evaluating the progress made toward planned initiatives.

3.3.4 Plan Review and Update

Sub-regional integrated resource management plans are conducted on a minor and major basis. Minor reviews occur annually and may see the review and revision of resource management objectives and guidelines for selected RMAs. Major reviews occur after periods defined in the Implementation Documents. Any aspect of an integrated resource management plan may be reviewed and revised during a major review.

Minor annual reviews of integrated plans are linked to the review of the integrated plans Implementation Document. In such a review RRMC members outline their agency's relevant proposed management activities for the forthcoming year. They review and discuss the past years activities and the variances between them and those outlined in the Implementation Document. At that time RRMC's review and revise the specific resource management activities

and guidelines of an integrated plan as is deemed necessary by the RRMC. Results of this annual review are recorded in an annual report of the integrated plan. These reports are sent to the ADMs of each affected agency for review and comment. The RRMC takes remedial actions required by the ADMs comments. The Annual Report is also distributed to the RIC for information purposes. Annual progress reports are also made available to the general public.

Major plan reviews may examine any aspect of the integrated resource management plan. The dominant purposes of the major review are to ensure that an integrated plan reflects the current provincial and regional policy direction, that general implementation consistency between plans and regions exists and that other relevant changes are recognized and accounted for in the plan.

Major plan reviews are coordinated by the RIC with consultation by the relevant RRMC. The RRMC recommends the appropriateness of the review and the RIC decides whether to proceed with a major review. A major review includes the activities of an annual review, pays special attention to the current status of relevant provincial and regional policy and involves public participation to the same degree as in the earlier steps of plan development.

3.3.5 Plan Amendments (outside a major review)

In order to change a planning area boundary, a broad resource management objective, a resource management area boundary, a resource

management area intent and, where applicable, land use zoning or activity/zone matrices a formal amendment procedure must be followed. Any Government of Alberta agency or member of the general public may apply for an amendment to a plan. Since policy amendments or amendments of major significance must involve public participation the proponent of an amendment is held responsible for costs associated with advertising and convening a public meeting.

Interdepartmental concerns affected by a proposal must be dealt with by the Natural Resources Coordinating Council of ADMs. Administrative, "housekeeping" or minor site specific proposals may be dealt with by the ENR ADM of Renewable Resources when the decisions relate to public lands, forestry, or fish and wildlife. Endorsement of a proposal that fundamentally alters the policy emphasis of a plan may be cause the initiation of a major review. A decision on proposals must be endorsed by the Associate Minister of Public Lands and Wildlife or designate. Amendments which entail a major policy decision may be forwarded to the Cabinet Committee of Economic Planning and Resource Development or the Cabinet Committee on Rural Development for decision.

3.3.6 Public Involvement

The IRPS recognizes the need for and usefulness of public consultation and involvement at nearly all levels of the planning process. Because each planning situation is unique and the plan must be tailored according to those unique characteristics, the Public Involvement Program managed by REAP has avoided establishing a set process for its delivery. One consistent component of the program is the Alberta Integrated Planning Advisory Committee. This

permanent Committee provides advice directly to the Associate Minister of Public Lands and Wildlife and is composed of representatives from six major provincial interest groups concerned with public land use and resource exploitation. These include:

- The Alberta Fish and Game Association
- Alberta Forest Products Association
- Canadian Petroleum/Independent Petroleum Association of Canada
- Alberta Wilderness Association
- Unifarm Association

The Alberta Integrated Planning Advisory Committee is primarily involved at the provincial policy level of integrated planning. The Committee meets with the Associate Minister and makes recommendations to the him regarding policies related to integrated planning such as the Coal Policy and Helicopter reconnaisance policy. The interest groups are required to maintain the confidentiality of the information exchange regardless of the decisions taken by the Associate Minister in respect to the advice given.

A second distinct aspect of public involvement in the planning process is the inclusion of provincial interest groups including those on AIPAC as public planning participants. Their advice is sought by the Team Coordinator on planning issues and on planning decisions taken by the planning team before being presented to the RIC for endorsement. Members of REAP produce a technical document which also includes public perspectives.

In respect to the general public, the Public Involvement Program has become quite flexible. Heavy emphasis is placed on communicating directly with the public, usually through the distribution of newsletter-type

information and the holding of public meetings. This opening up to the public-at-large is another relatively recent development. Beginning in 1982, it is now firmly entrenched and well budgeted.

Eastern Slopes sub-regional plans generate interest among Albertans due to the strong recreational attraction of the area to a wide range of people. In many other plans, public interest is limited to regional residents alone. Each situation requires different types of information and active participation methods.

Steps of the Public Involvement Program are to gather basic information, identify the public with an interest in the plan and determine the degree of participation that is appropriate. Interest expressed by the public in response to studies and interactive information efforts determine the degree of participation for each plan.

The RIC plays a key role in the development of a public participation program. Not only must it consider the results of the REAP public participation staff reports and select alternative proposals for action, it must also be prepared to defend its decisions on issues and suggestions raised by public participation by participating in public forums.

All public participants are treated equally. Education, profession, vocation, interest group status do not determine degree of participation. All participants receive the same detailed information and/or responses and progress statements and other documentation.

3.3.7 Summary

The Integrated Resource Planning System is based on flexible procedures that continue to evolve. The philosophy of the system is founded upon six planning principles that provide guidance to the process of developing planning procedures. The principles which focus on "integrated resource management" call for a shared, concensus decision-making effort by teams of land and resource experts.

The Integrated Resource Planning System is a hierarchial system containing four levels of planning: Provincial, Regional, Sub-regional and Local. Ten government agencies participate on a regular basis in integrated planning. Five of these agencies are part of the Department of Energy and Natural Resources. Not all of these ten agencies have land or resource management mandates but all are concerned with resource development and have expertise in either resource development or planning in Alberta. Regardless of their mandate all have an equal voice in integrated planning decisions.

The major planning and review mechanisms that develop the plans are representative of a hierarchy of government positions of authority in resource management: land and resource managers, or field personnel, field (resource) directors, assistant deputy ministers, and deputy ministers. Politicians are represented by the Associate Minister of ENR and the members of the Provincial Cabinet on the Economic Planning and Resource Development Cabinet Committee.

The planning process has six steps:

1. Terms of Reference
2. Data Collection and Analysis
3. Policy Alternatives
4. Design Alternatives
5. Draft Plan
6. Final Plan

Most of the decision-making responsibility which directs the development of a plan from step one to step seven is held by a headquarters director level committee. However, considerable influence has been granted to the regional directors. Active planning is conducted by a team of resource and land experts who work in the region where the planning area is located. Two planning tools dominate the planning methodology. The resource activity/land use matrix is used to focus the team on the logical relationship of the land base and the potential resource uses and away from the mandate and special interests of the team member's agency. The use of this tool as a permanent part of the plan is declining. The establishment of Resource Management Areas is a concept that has seen much support development. Utilization of the RMA concept permits the team to divide the planning area into logical management units for which the team can assign major resource objectives. The RMA structure that results allows the objectives established by each agency to be tested both individually and collectively. A major element of the final plan is the list of resource management guidelines that are developed for the planning area as a whole and for each RMA in particular.

Plan implementation is the responsibility of the RRMCs. The Implementation Documents records the terms of implementation and serves as the basis of interfacing the plan with the integrated resource management system.

Two levels of plan reviews are designed. Annual reviews are selective and tied to the review of RRMC controlled implementation activities and plans. Major review wholistic in nature and the responsibility of the RIC. Plans may be amended at any time by means of a formal process that would include public participation when warranted.

Public involvement in the planning process has recently been given considerable political support and is now undergoing rapid development and widespread implementation.

PART TWO

- ANALYSIS OF THE PRACTICE -

4. CASE STUDY ONE: THE CASTLE RIVER SUB-REGIONAL PLAN

The Castle River Sub-Regional plan was the first sub-regional plan to be undertaken. The Castle River area had first been assigned a high planning priority by the Eastern Slope Interdepartmental Planning Committee during the development of the Eastern Slopes Regional Policy.

At the time that the Castle Plan was begun, the only active elements of the planning system were the planning team and the RIC. The steps involved in the planning process, although named somewhat differently, were the same as those already described in section 2 of this paper. No special education of the planning team participants was undertaken. Generally speaking the expertise for the integrated planning was concentrated in the Resource Planning Branch whose responsibility it was to coordinate planning activities and to establish the initial planning techniques, methods and approaches.

4.1 Initiation

The Castle Planning exercise was begun in June 1977 with the decision of the Alberta Energy and Natural Resources, Recreation, Parks and Wildlife Interdepartmental Assistant Deputy Minister's Committee which identified the Castle River area as a priority for the development of an interdepartmental plan. The Planning Team was initially composed of representatives of 2 departments: Energy and Natural Resources (ENR) and Recreation, Parks and Wildlife (RP&W). The specific agencies represented by full participants on the Planning Team were the Alberta Forest Service, ENR, the Public Lands Division, ENR, the Minerals Disposition Division, ENR, the Provincial Parks

Division, RP&W, the Fish and Wildlife Division, RP&W[1] and the Recreation Development Division, RP&W. These agencies were identified in the Planning Proposal as the "primary clients". Seven other provincial government agencies and six other agencies and politicians were identified as "consultants" for the process.

Figure 4.1 lists the major planning activities and products in chronological order. It may help the reader to visualize the relationship between the various planning activities.

4.2 Terms of Reference

The initial task of the Planning Team was to establish the terms of reference for the Planning Team's work. This exercise was reported in a document entitled Planning Proposal Castle River Planning Area. The document identified the three main purposes of the planning exercise as follows:

> "To develop an integrated management plan for the planning area that will provide prescriptions for resource use and development into the future.
>
> To identify land disposition and resource use problems through discussions with involved resource management agencies.
>
> To refine the regional "Policy for Resource Management of the Eastern Slopes" and to facilitate its implementation by the development of an integrated management plan.[2]

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1 Fish and Wildlife was at that time a part of the Department of Recreation, Parks and Wildlife. It became a part of Energy and Natural Resources soon after and long before the conclusion of the planning exercise.

2 Planning proposal Castle River Planning Area, Resource Planning Branch, ENR, December 20, 1977 revised March 1978 p. 5.

Besides formerly establishing the boundaries of the planning area the terms of reference include a list of resource concerns and issues. The terms of reference also include a statement defining the scope of the planning exercise. The statement instructs that the integrated management plan will "obtain direction from the broad Eastern Slopes Regional Policy but will define it in terms of what uses or developments may take place on public lands, where specifically, and to what intensity". The statement continues by explaining that "... the policy identifies areas of high potential for recreation, and the integrated management plan refines this by identifying specific areas and their uses. The integrated management plan will not, however, attempt to dictate site or facility design."[1] These terms of reference ensured the continued use of the land use zones in the sub-regional plan but otherwise the scope of the plan was open to considerable debate and development.

Table 4.1 represents the original (1977) version of the Eastern Slopes Policy's Activity/Zone matrix. The Eastern Slopes Policy served as a regional plan for Castle River sub-region planning exercise.

The terms of reference also includes a statement concerning the implementation of the plan. It indicates that line agencies with resource responsibilities would implement the plan and that the AFS would continue to be responsible for timber, range, recreation and watershed management within the Green Area. It also indicates that the Fish and Wildlife Division of Recreation, Parks and Wildlife would be involved in wildlife management. This

1 Ibid p. 7.

Figure 4.1 CASTLE RIVER PLAN DEVELOPMENT OVERVIEW

Table 4.1

Permitted Activities by Land Use Zones
for the Eastern Slopes (1977)

ZONE / ACTIVITY	1 PRIME PROTECTION	2 CRITICAL WILDLIFE	3 SPECIAL USE	4 GENERAL RECREATION	5 MULTIPLE USE	6 AGRICULTURE	7 INDUSTRIAL	8 FACILITY
Non-Mechanical Recreation	/	/	R	/	/	/	R	/
Fishing	/	/	R	/	/	/	R	/
Hunting	/	/	R	R	/	/	R	X
Trails (Non-motorized)	R	R	R	/	/	/	R	/
Off Highway Vehicle Activity	X	R	R	R	/	/	/	/
Primitive Camping	R	R	R	/	/	/	/	X
Serviced Camping	X	X	R	/	/	R	X	/
Intensive Recreation	R	X	R	/	/	X	X	/
Scientific Study	/	R	R	R	/	/	X	/
Trapping	/	R	R	R	/	/	/	X
Logging	X	R	R	R	/	/	X	X
Cultivation	X	X	R	X	R	/	X	R
Domestic Grazing	X	R	R	X	/	/	X	R
Petroleum & Natural Gas Exploration & Development	X	R	R	X	/	/	/	R
Mineral Exploration & Development	X	X	R	X	/	/	/	X
Coal Exploration and Development	X	R	R	R	/	/	/	X
Transportation and Utility Corridors	R	R	R	R	/	/	/	/
Commercial Development	X	X	R	R	R	R	X	/
Industrial Development	X	X	R	X	/	R	/	R
Residential	X	X	R	X	R	/	R	/

/ Permitted Uses - Uses that will be allowed under normal guidelines and land use regulations.
X Not Permitted - Uses that are not compatible with the intent or capabilities of a land use zone.
R Restricted - Uses that may be compatible under certain circumstances and stricter than normal controls.

statement did not attempt to define the means by which the Fish and Wildlife Division would achieve its involvement. Many participants interpreted the statement to mean that the management of the Critical Wildlife Zone was the responsibility of the Fish and Wildlife Division. Similarly, many felt that the management of the general recreation zone would become the responsibility of Recreation and Parks Department and the management of the multiple use zone that of AFS. The clear intention of the terms of reference document was to avoid this proprietorial attitude to zones and the problems that it could bring. However, this proprietorial interpretation of the zones persisted and contributed to the difficulties that the Castle River Plan had with policy issues.

It has been suggested that the source of this proprietorial perspective was the frequently protectionist attitude of line agencies that was generated when implementing the provisions of the Eastern Slopes Policy at the operational level. The attitude is attributed to the difficulty that was encountered by implementation of the regional scale policy to operational scales of day to day management and was not unique to the Castle River area.

4.3 Data Collection and Analysis

Initial fieldwork was completed in November 1977, however identification of gaps and the collection and assemblage of missing data extended the data collection stage. An Ecological Land Classification (ELC) was completed in February 1978. The purpose of the ELC was to provide a common base map that all team members could relate to and a spatial data base that could be used as a planning aid. The ELC included the full range of

Canada Land Inventory (CLI) capability ratings. These ratings were adjusted to accommodate the new ELC spatial units. Although the ELC was well received by wildlife biologists since it provided them with considerable habitat information, not all team members thought that the CLI data that was included was appropriate. Data collection was completed in March 1978 and a document entitled The Background Paper Castle River Integrated Management Plan was published by the Resource Evaluation and Planning Division in August, 1978.

The background paper attempted to integrate the collected information. It identified further issues and concerns and confirmed those already listed in the terms of reference. It did this by presenting basic resource data on 1:100,000 scale maps, together with resource policy provisions as defined by each agency. Weaknesses in data and policy conflicts were identified in the Background Paper.

Although it was appropriate that the Team Coordinator prepare the Background Paper and thereby maintain its objectivity, the document has since been deemed unnecessary. The Castle River planning experience demonstrated that the Background Paper was a redundant process because the Team could and would prepare conflict statements and policy positions that were identified by the team coordinator in the Background Paper. It has also been suggested that agency sensitivity to a single high profile document that could be reviewed was also responsible for the disappearance of the Background Paper. The implied concern is that review of the plan, especially by public groups, could use the data documentation to argue that the conclusions reached were not sound. In the United States public planning by the National Forest System has seen legal challenges to plans based on arguments against quantitative

modelling techniques and interpretations of data[1] and although the legal situation is different in Alberta many of Alberta's resource planners are aware of U.S. problems.

4.4 The First Draft Plan

Between August 1978 and the fall of 1980, the Planning Team developed broad resource objectives for each sector, examined and re-defined land use zones (using the more detailed information collected for the Background Paper), developed design alternatives and a draft plan. Just as the final draft was being made ready for final approval by RIC, Team Members and a new team coordinator[2] realized that for several reasons this draft was inappropriate and should be revised. Included in the reasons justifying such a decision was implications of new grazing unit and range capability data that had been developed outside of the planning situation and the sudden increase in pine bark beetle damage that required abandonment of normal sustained yield harvesting programs in favour of salvage operations. Many of the Team Members felt that the zoning changes that had been made were not what they should be and that planning guidelines frequently went in to great detail and infringed on the flexibility of the land and resource managers. The new Team Coordinator recognized that the zones did not relate well to the ELC data and as a result, the planning program returned to the development of policy options with a heavier emphasis on the use of ELC data.

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1 Cortner, Hanna J., and Dennis L. Schweitzer, "Institutional Limits and Legal Implications of Quantitative Models in Forest Planning", Environmental Law Vol. 13: 1983 pp. 493-516.

2 (Personnel changes often occur in planning situations as a result of normal personnel turnover).

4.5 The Policy Option Step

The redevelopment of the policy options for the Castle River plan occurred between the winter of 1980 and the summer of 1982. Four major tasks were involved in this process:

- the redevelopment of zoning,
- the redefinition of the objectives of each agency in spatial terms,
- the identification of policy problems which impeded planning activities, and
- the preparation and development of an approved draft policy.

Although the zoning was worked on concurrently with the development of the resource sector objectives the zone alternatives for RIC approval were completed first. The proprietorial perception of the land use zones had persisted and had been generally resolved by an agreement between AFS and Recreation and Parks that was worked out at the RIC level.[1] This agreement stated that if zone 4 lands (general recreation) were surrounded by zone 1 lands (prime protection) Recreation and Parks would have prime responsibility for their management, on the other hand if zone 4 lands were surrounded by zone 5 lands (multiple use) then AFS would have prime management responsibility (see Map 4.1). As a consequence when redeveloping the zones according to the new data the planning team member naturally interpreted the information with a bias to creating his own configurations that maximized his particular agency responsibilities. The four zoning alternatives developed by the team strongly reflected these biases rather than concensus decisions.

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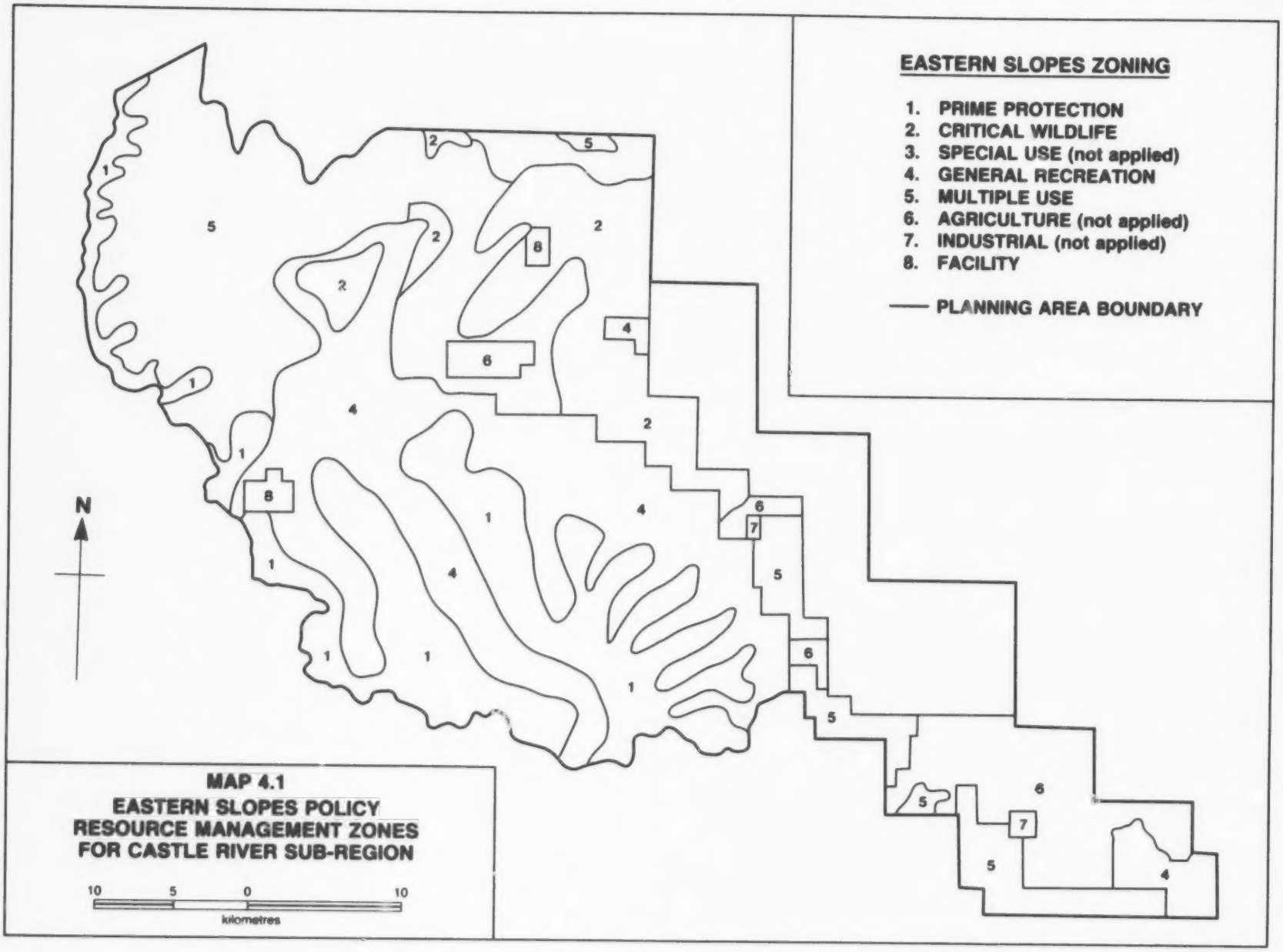
1 Fish & Wildlife had by then become part of ENR.


EASTERN SLOPES ZONING
1. PRIME PROTECTION
2. CRITICAL WILDLIFE
3. SPECIAL USE (not applied)
4. GENERAL RECREATION
5. MULTIPLE USE
6. AGRICULTURE (not applied)
7. INDUSTRIAL (not applied)
8. FACILITY
PLANNING AREA BOUNDARY
N
MAP 4.1
EASTERN SLOPES POLICY
RESOURCE MANAGEMENT ZONES
FOR CASTLE RIVER SUB-REGION
10 5 0 10
kilometres

It was at this point that the efforts of the Resource Planning Branch planners in general, and the Castle River Planning Team in particular, resulted in a major advancement in the techniques of redefining the zone boundaries. Heretofore the zone boundaries were stylized and very subjective. It was very difficult to justify or account for the location of a particular boundary line. The Castle Team Coordinator encouraged the Team to place more emphasis on use of the ELC data and consideration of the land management intentions associated with each zone.

The Planning Team then began to produce zone boundaries that were based on readily identifiable criteria which could be re-applied in different circumstances. The prime example is that of the prime protection zone boundary (zone 1). The intent of the prime protection zone, as defined by the Castle River Planning Team with guidance from the East Slopes Policy, was worded: "to protect environmentally sensitive terrain, valuable aesthetic resources, quality and quantity of water, rare and important plant and animal communities and representative areas of natural landscape." The Eastern Slopes Policy had defined the lower boundary of this zone by following the 6,500 ft. contour line. The Planning Team pointed out that many areas below this contour should be included in the prime protection zone. The Team decided that a more appropriate boundary would be the ecoregion line that marked the limits of the Alpine Ecoregion. The Alpine Ecoregion excludes all forested land and includes vegetation composed of sparse pockets of dwarf shrubs and graminoids with the occasional stunted alpine fir. This vegetation is associated with high winds and edaphic conditions such as avalanche, water erosion, mass wasting, frost action and soil creep.

The second task of the team and major development of integrated resource planning tools was concerned with the spatial definition of resource sector objectives. The tool, or concept, was known as Resource Management Areas (RMAs). RMAs were introduced to the Castle River Planning Team by the Team Coordinator. The primary idea behind the RMAs is that specific dominant resource management activities take on a spatial character due to the capabilities and qualities of the land. Having subdivided the planning area into smaller units (RMAs), based primarily on management intent, each planning team member could then see clearly where particular resource objectives would best be met and would understand the logic behind the exclusion or restriction of specific resource activities. The establishment of RMAs developed a scenario to which the individual team member could react, and upon which, prescriptions and guidelines for resource use and development could be built. The fact that each RMA could include land from several zones was beneficial to further discussion concerning resource uses because the intent of the zones and their alternative boundaries were well known to the team members and could now be further defined in the context of a specific priorized management intent.

The third task, the identification of policy problems that interfered with planning activities was addressed by the Team Coordinator by means of individual interviews with Team Members. Policy issues that had interfered with concensus decision-making were identified. Discussion of the findings contributed significantly to the cohesiveness of the Team as a working unit because it helped them understand more precisely the nature of their decision-making problems.

The fourth task, the stage by stage development of the draft policy itself required that the Team prepare alternative re-zoning suggestions and select one under direction of the RIC, define the boundaries and intent of the RMAs and prepare a final document for RIC approval.

The Team presented the RIC with four alternatives for refining the land use zones in the Castle River area. The Team did not recommend any one alternative over another. Instead it presented the RIC with a series of fundamental policy questions concerning the nature of the integrated planning systems. Although concensus was not possible with regard to one alternative the Team was able to help the RIC develop a concensus by clearly identifying the policy questions that prevented concensus decision-making. The technique also allowed the RIC to understand fully why the alternatives existed. By getting answers to four of the initial policy questions the Team was able to reduce the four alternatives to two. After two further referrals the Team was able to produce a single recommended zoning scheme.

The RIC was unable to answer all of the policy questions. Some required review by more senior levels of authority. For example, the question of whether domestic grazing could be excluded automatically from the general recreation zone in order to meet the intents of that zone was referred all the way to Cabinet before a decision was taken. In this example, a political promise that grazing would not be reduced as a result of Eastern Slope planning conflicted with Eastern Slopes Regional Policy which indicated that domestic grazing was not permitted in the general recreation zone. Clearly, a resolution of such an issue was not within the mandate of either the Team or of the RIC. The exercise of presenting the policy issues together with the

zone alternatives demonstrated the need to have other levels of decision-makers review the plan in one form or another before it could be finally approved. As a result the Natural Resources Advisory Committee and the Natural Resources Coordinating Council, neither of which had been involved in sub-regional planning, were added to the review and approval process to represent the ADM and DM decision-making levels and contribute to the difficult task of interpreting policy and taking far-reaching policy decisions.

Although the approval process had become seriously bogged down in the resolution of these issues the identification of the RMAs and their intent were quickly approved after the resolution of the policy questions. Likewise, the Resource Management Policy which documented the draft policy step was quickly developed and approved.

4.6 Plan Design

As approval of the resource management policy document was being acquired the Team began to develop the plan design. This step involves the further definition of resource management objectives for each RMA and the preparation of guidelines which define the spatial and temporal context of their realization. This step had been underway for only a few months when again the Team Coordinator changed. The third team coordinator assisted the Planning Team in the development of more specific objectives and guideline definition.

The basic technique used was to have the Team Members take a proposal to their agency for an analysis of the impacts of such a proposal on that agency's resource management activities. Each Team Member would then make a counter proposal. All would be discussed by the Planning Team and would form the basis of a design that all Team members would agree to.

Even though many of the ENR team members were employed by the regional agency office, relationship with the agency was dominated by relations with the headquarters office. Although the RRMCs were at this time being established by the Department of Energy and Natural Resources as part of a regionalized management thrust, they had not been involved in the planning process. Non-ENR team members were almost always headquarters employees.

Approximately six months after the approval of the Resource Management Policy RIC reviewed the design alternatives and directed the design of a single alternative. Three months later RIC approved in principle the selected design.

4.7 The Draft Plan

Within a month a draft plan had been composed and presented to the Deputy Minister of the Department of Energy and Natural Resources although the Natural Resources Advisory Committee and the Natural Resources Coordinating Council were on their books they had not yet met. The Deputy Minister rejected the draft plan indicating that too many issues remained unresolved.

A prime example of this was the 90 quarter sections of public owned land that existed outside of the Green Area and had been leased to the public as grazing leases. AFS and the Lands Division had not been able to agree which quarter sections would more appropriately be assigned to the Green Area. Lack of data was cited as the prime cause of this indecision.

Following the instruction of the Deputy Minister to resolve the issue satisfactorily, efforts were made to collect further data and to decide which lands should be designated as part of the Green Area. Within one month the team had decided that 45 of the 90 quarter sections should be assigned to the Green Area. These 45 contained significant wildlife and timber resources suitable for multiple use management and should not be sold to the public.

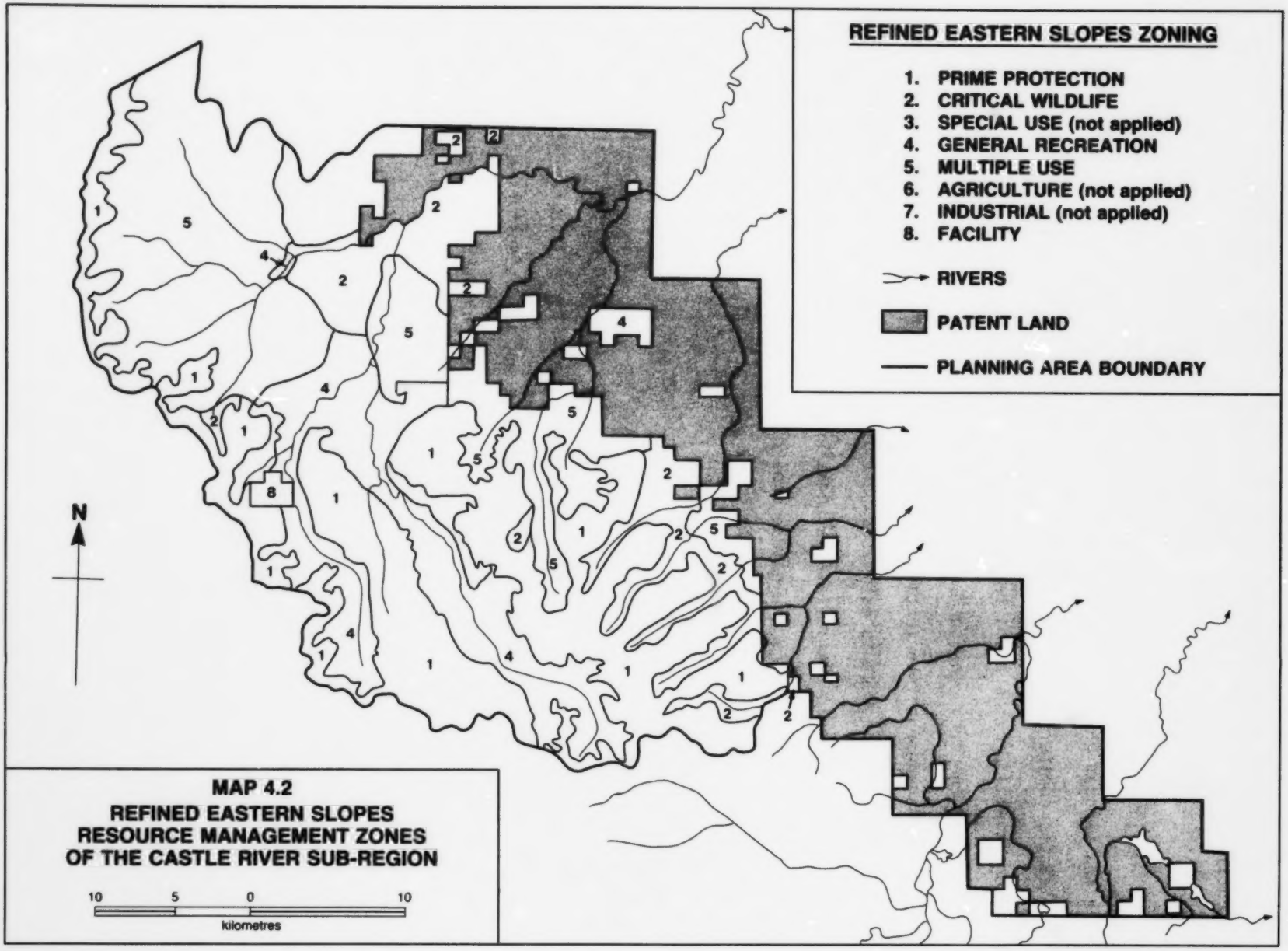
The Castle River Plan shows an exceptional level of resource management coordination. Because of the 1977 promise that grazing would not be reduced and because of the desire to maintain continuity for the ranchers it was agreed that the Public Lands Division would continue to manage the grazing areas that were included on the land being transferred to the Green Area. Under this agreement, grazing improvement activities would continue on the grazing lease areas and would remain as grazing land. On the other hand, the forested land would be managed by the AFS on a sustained yield basis. Integration in this case went beyond the sharing of decision-making to the actual sharing of administrative management responsibility. In the end the 45 quarter sections were not transferred to the Green Area, but remained in the White Area. Some feel this is important because it established an integrated planning precident that did not limit sustained yield forest management by the AFS to lands allocated to the Green Area only. Until then the integrated

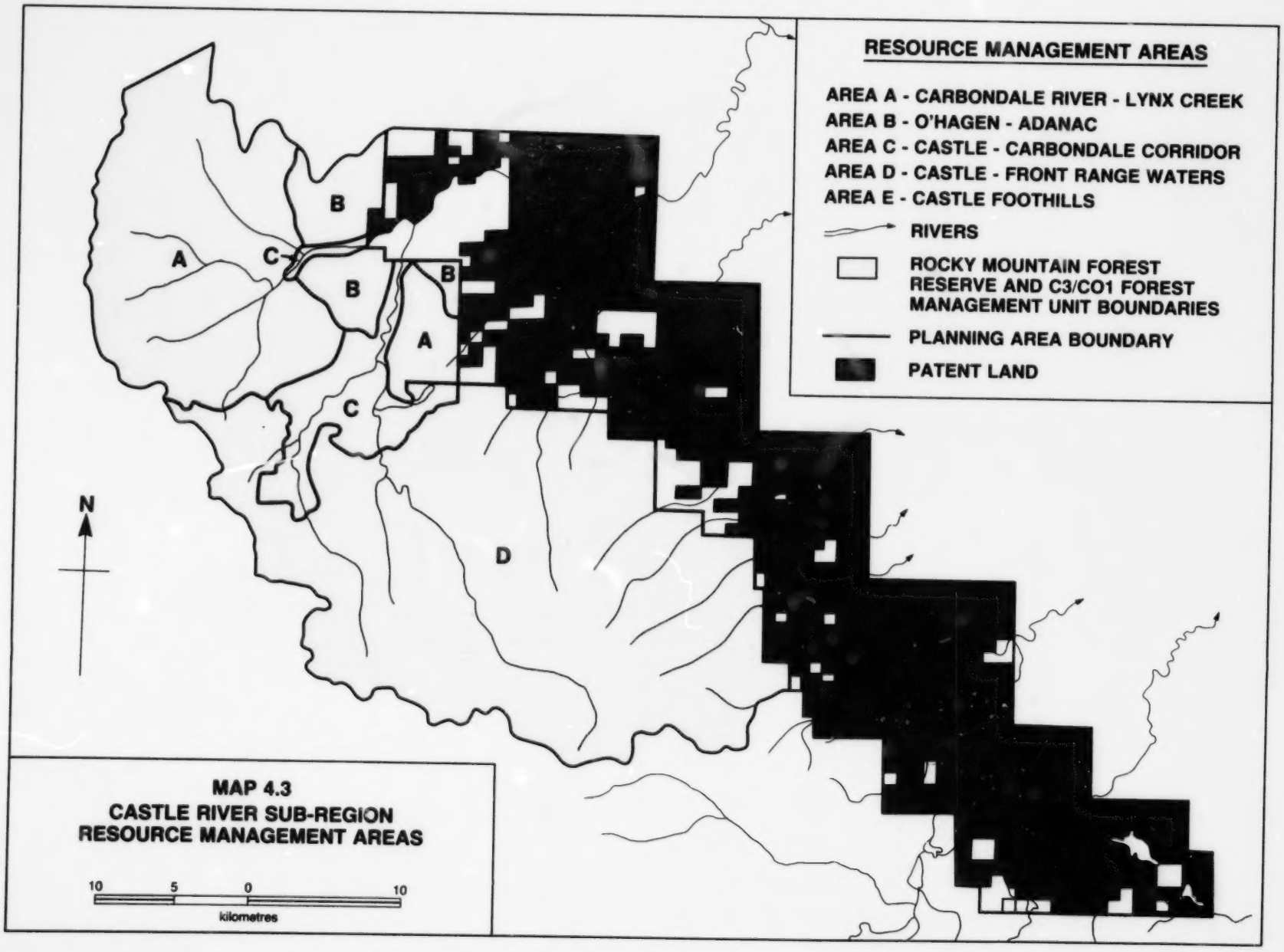
planning always assumed that land not allocated to the Green Area would be outside AFS jurisdiction and not subjected to sustained timber production.

In an effort to serve the interest of the ranchers, the AFS embarked on a new program which called for the scarification and seeding with grass of clearcut coniferous forests that AFS managed on these transferred lands. This program will provide extra temporary range for periods of 15 to 20 years following the cut. In other areas where reforestation could occur naturally without management intervention informal use by the ranchers will be permitted whenever possible. It is estimated that in these areas the increase canopy cover by pine would permit informal grazing for a period of up to 20 years. In summary, the ranchers would lose none of the lands already available to them and would in fact frequently benefit from multiple use management of presently forested areas.

One of the more important aspects of this revision of the Draft Plan was the involvement, for the first time, of RRMCs. Their involvement was required both in the rapid acquisition of data and the assessment of the impact of the various options on their programs as the options unfolded.

Within three months of the Deputy Minister's review, the final draft plan was endorsed by the RIC and prepared for public disclosure before presentation to the National Resources Advisory Committee (NRAC) for their approval. Some public interest groups objected to the exclusion of petroleum and natural gas exploration and development in the Font Creek and Castle River headwater area. This area had been designated zone 1 (Prime Protection) by the Planning Team even though it was not included in the Alpine Ecoregion. In


REFINED EASTERN SLOPES ZONING
1. PRIME PROTECTION
2. CRITICAL WILDLIFE
3. SPECIAL USE (not applied)
4. GENERAL RECREATION
5. MULTIPLE USE
6. AGRICULTURE (not applied)
7. INDUSTRIAL (not applied)
8. FACILITY
RIVERS
PATENT LAND
PLANNING AREA BOUNDARY
N
MAP 4.2
REFINED EASTERN SLOPES
RESOURCE MANAGEMENT ZONES
OF THE CASTLE RIVER SUB-REGION
10 5 0 10
kilometres


RESOURCE MANAGEMENT AREAS
AREA A - CARBONDALE RIVER - LYNX CREEK
AREA B - O'HAGEN - ADANAC
AREA C - CASTLE - CARBONDALE CORRIDOR
AREA D - CASTLE - FRONT RANGE WATERS
AREA E - CASTLE FOOTHILLS
RIVERS
ROCKY MOUNTAIN FOREST RESERVE AND C3/CO1 FOREST MANAGEMENT UNIT BOUNDARIES
PLANNING AREA BOUNDARY
PATENT LAND
A
B
C
D
N
MAP 4.3
CASTLE RIVER SUB-REGION
RESOURCE MANAGEMENT AREAS
10 5 0 10
kilometres

the detailed level definition of the zones that followed RMA management intent planning, the Planning Team had not extended the zone 4 (general recreation) as far south as the Front Range Headwaters area in order to preserve watershed and wildland recreation values. It was the Team's desire to stop the building of roads in the area to reduce pressure on the wildland and thereby maintain the extensive nature of the recreation being proposed for the Castle-Front Range Headwaters RMA and reduce any negative impact that such access might have on the water quality (considering the extremely high snowfall that occurs in the valley). The team also wanted to provide an adequate buffer to the back country of the Waterton National Park to minimize access to the back country area of the park.

Although these arguments had been endorsed by the RIC the NRAC (with the support of the Associate Minister of ENR) called for the Team to extend zone 4 to include the area in question. The principle logic behind this revision was that the use of the Alpine/Sub-alpine boundary was not being consistently applied throughout the planning area.

In its accommodation of this directive the Team utilized the RMA planning tool in a way which demonstrates its full effectiveness as a resource management planning tool. Even though zone 4 permits petroleum and natural gas exploration and development, the fact that it lies within an RMA whose intent is extensive recreation permits special conditions to be applied to that exploration and development activity. The Team was able, therefore, to establish operational guidelines requiring that roads be reclaimed, that the roads be manned and signed, and that the use of the roads be restricted to petroleum and gas exploration and development. The Team decided that with

these conditions and effective use of normal referral management procedures the NRAC's decision did not interfere with the Team's earlier decision to protect the Front Range Headwaters. The logic which justified the extension of zone 4 was accommodated in a manner which, thanks to the flexibility offered by the RMA concept, was able to establish conditions that continued to serve all of the resource management objectives that had been established for the area (see Map 4.2 and Map 4.3).

4.8 Implementation and Beyond

Implementation of the plan will be conducted by the RRMC with assistance from the regional resource coordinator employed by the Resource Evaluation and Planning Division. Active planning of the implementation process is awaiting acceptance of the final plan by the Cabinet Committee.

In as much as the clients of the plan have been identified as AFS, Public Lands, Fish and Wildlife, and Parks and Recreation the views of the RRMC were sought out by this writer in addition to the views of the Directors represented on the RIC committee. Satisfaction with the plan was exceedingly high. Most enthusiastic were the RRMC members. Both direct and indirect benefits of the plan were repeatedly sighted. Indirectly the planning exercise was seen to have brought the ENR resource management staff closer together. Not only did the interpersonal relations that occurred on the planning team benefit but also the exercises of analyzing the impacts of each agency's proposals on other agencies accounted for the improvement in the inter-agency relations. Both generated an understanding of the other agency's management perspective, tools, and needs.

In direct terms the plan was seen as resolving many interagency conflicts and resource allocation problems. Besides citing the examples already listed the regional resource managers indicated that the plans would act as a useful management guide and give confidence to their actions and operational plans. Regional confidence in the plans were based on two major factors: the integrated nature of the planning and the public involvement. Regional staff appreciated more than most that integrated planning and concensus decision-making component resulted in the resolution of many serious inter-agency management problems. Likewise, the regional staff recognized the public involvement as a successful public testing of their plans and the agency's policies. This alone seemed to heighten considerably their confidence in the plan and in the future decisions that they would make based on the plan.

In the Castle River plan, the development of guidelines for operations within the different RMAs generated many guidelines which were repeated in all of the RMAs. These generic statements were identified and listed as Broad Resource Management Guidelines. The team coordinator felt that these contributed to the "comfort level" of the team. The reason for this benefit, in part at least, would appear to be a result of the increased use and importance of the referral system in resource management in Alberta.

5. CASE STUDY TWO: THE JEAN D'OR PRAIRIE SUB-REGIONAL PLAN

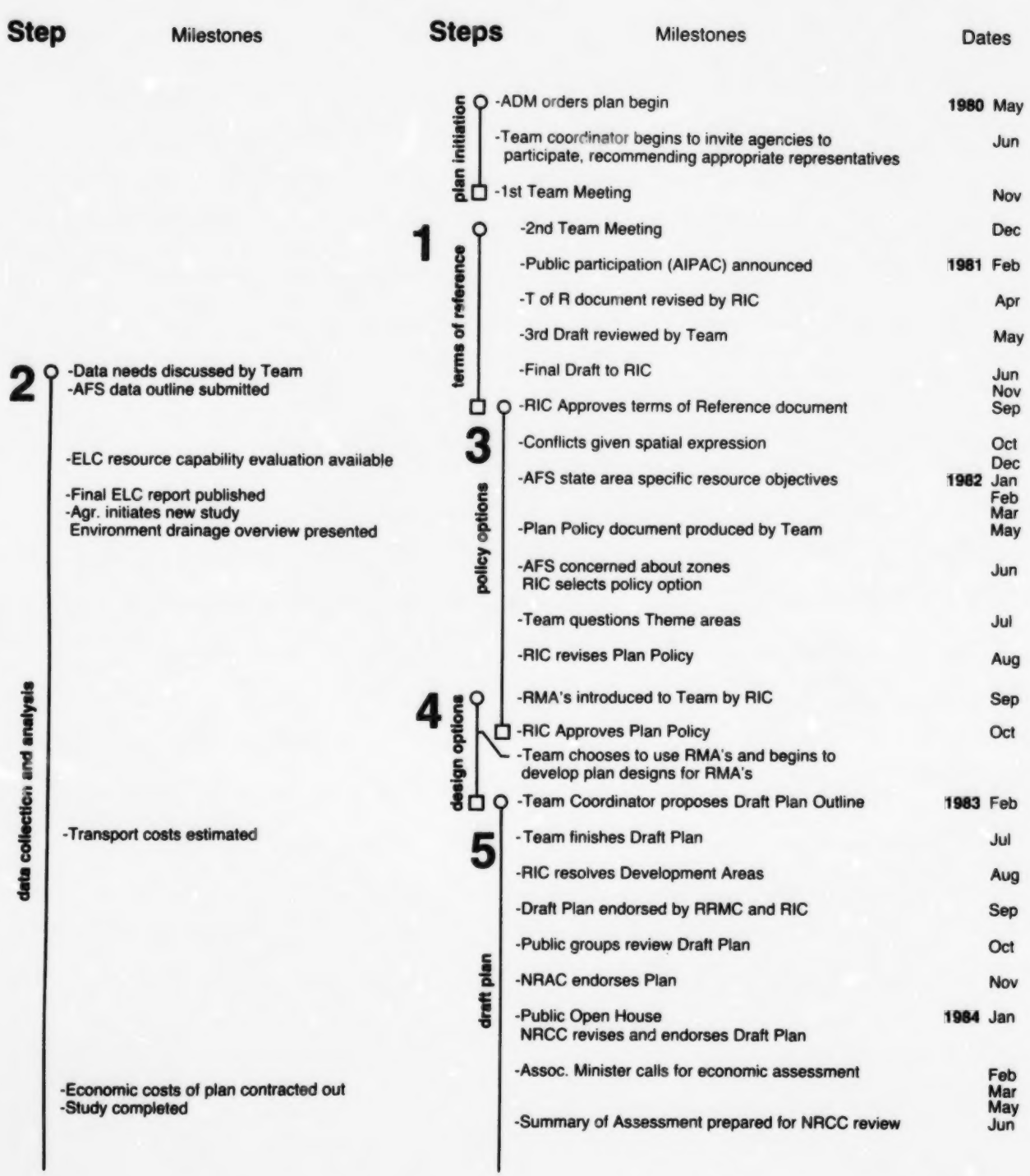
5.1 Introduction

The Jean D'Or Prairie planning area was identified by the Lower Peace River Regional Overview (ENR 1981) as having potential for agricultural development. Based on that assessment, the Natural Resources Advisory Committee (NRAC) identified the area as a priority for the development of an integrated resource plan. Government agencies were notified and given opportunity to participate in the planning exercise with varying levels of involvement.

The NRAC had received requests from the Peace River RRMC, Alberta Agriculture and Alberta Environment that an integrated plan be developed for the area. These requests were generated in response to the Alberta Government Provincial Policy that the agricultural land base of the province be expanded and local pressure for new till crop lands in the Lower Peace River Region and related land and resource use conflict concerns.

At the time the interviews for this study were held the Jean D'Or Plan had been developed to the end of the Draft Plan step. It has taken almost three years of active planning to reach that stage. Approval of the Final Plan was awaiting the production and review of a last-minute requirement by the Associate Minister of ENR for an economic impact statement.

Figure 5.1 JEAN D'OR PRAIRIE PLAN DEVELOPMENT OVERVIEW



The development of the IRPS planning process and specific planning tools is strongly reflected in the history of the Jean D'Or Plan. Evolution of the concepts of data collection, public involvement and development and application of plan design activities are clearly evident.

Figure 5.1 lists the major planning activities and products in chronological order. It may help the reader to visualize the relationship of the various planning activities.

5.2 Terms of Reference

The establishment of approved Terms of Reference for the Jean D'Or Plan took eleven months (measured from the first Planning Team meeting). Compared with the six months required for the equivalent Castle River planning document and considering that considerable experience in producing Terms of Reference documents preceded the Jean D'Or Plan, eleven months is an overly long period. Paucity of Provincial Policy details and the absence of a regional level integrated plan[1] was acknowledged by IRPS participants as being the major cause of the slow progress. The Lower Peace Regional Overview had been completed but it was not readily transferable to the sub-regional level planning. The Overview could not be considered as a true reflection of regional and provincial policy since it did not have the strength of cabinet committee authority behind it. Without the guidance of these higher level planning inputs Team and RIC members had to develop policy positions. This required considerable liaison with each agency and considerable time and effort.

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1 The development of a Regional Overview improved the situation especially in regard to data and location of the most beneficial planning area. However, because the Overview did not deal with policy matters, it does not qualify as a regional plan.

The Terms of Reference document indicated that the "particular" purpose of the plan was to "refine the location of the Green Area boundary and to make land use activity recommendations". It is important to appreciate that boundary changes were seen to threaten administrative jurisdiction of potentially large areas of land and the achievement of some resource agency objectives associated with those lands and that this is always a sensitive subject area for most large organizations to deal with.

The Terms of Reference document listed resource sector concerns and issues but did not offer any direction regarding management intent or any other more explicit resource objective priorization statement.

5.3 Data Collection and Analysis

The Jean D'Or Planning Team made a major alteration in their application of the planning process as it existed in 1982. The Team decided not to produce a Background Information document that until then had marked the end of the Data Collection and Analysis Step; the Team decided it would take too much time to produce one. Also, the Team recognized that data shortages which remained in many resource sectors after the traditional collection period might require further data collection in order to complete the planning process. The course of events supported the Team's decision and this open-ended view of the Data Collection and Analysis Step is now IRPS policy.

The Team replaced production of a major data document with the production of a check list that identified data needs and the listing of the agencies which would provide the data. Some small sector background papers were prepared by those responsible. The papers outlined the results of the data collection and analysis and were included in the policy alternative document in the form of appendices.

The Team had been reluctant to use only CLI data at this level of planning. The Team expressed concern over the reliability and inappropriateness of CLI data and its classifications for the Jean D'Or exercise. Instead of relying on extrapolation of CLI data, Team members and other agency experts worked with the ELC practitioner to develop new, more appropriate capability ratings for land allotment analysis. These ratings formed the basis for Policy Options decision-making. Data shortages forced the Team to rely heavily on the ELC information and the professional experience and judgement of the Team members.

The flexibility offered by the new approach to data collection that allowed the introduction of new data at anytime was fully utilized when the Agriculture Alberta Team member initiated a second agriculture capability rating study. The new study produced agriculture capability ratings that were moderately higher for all of the planning area and markedly higher in some areas where drainage was a problem.

Although initially resisted by other Team members the new evaluation was accepted despite the delay it caused in the initiation of the Design Alternative Step.

The soil rating schedule used in the ELC capability evaluations is open to interpretation. The evaluation is very subjective and the rating can vary significantly with the same ecological data. The second study identified two areas where the ratings varied significantly from the original. Agriculture and ELC representatives met and discussed the differences.

The overall difference between the original ELC and the Agriculture Alberta ratings resulted from the fundamental difference in the method used to guide application of the rating technique. Agriculture successfully professed that since the objective of the planning exercise was to identify land for agricultural expansion then the capability rating should reflect land development practices that can increase the agricultural capability of certain types of land.[1] The introduction of new ratings was intended to bolster the position of the agricultural proponents against the "best use" argument of the forestry proponents. It was important that the agricultural proponents make it clear that the basic capability and developed potential of a parcel of land can differ significantly.

The development of a new rating which demonstrated this variability was an effective negotiating tool. The introduction of new ratings focused on particular areas under discussion in the policy stage. For example certain

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1 Underlying the acceptance of the new ratings was the implied acceptance that the cost of the developments were acceptable.

lands supporting 50 years old white spruce stands and lying near agricultural settlement lands had originally been excluded from agricultural expansion. The rating change supported the appropriation of these lands to agricultural expansion.

5.4 Policy Alternatives

The prime objective of the planning exercise was established in the plan policy document. The introduction states that "the Management intent of the plan is to identify and make available additional public lands for agricultural use..." It is not clear how this was established, it was not included in the terms of reference document. Perhaps it became self evident as a consequence of the course of events which dominated the Policy Alternatives step.

The Jean D'Or planning exercise created the first lower Peace River sub-regional plan. Many of those interviewed saw the plan as a precedent-setting exercise in regard to the use of integrated planning to provide structure for expansion of the agricultural land base in the lower Peace River region. This appears to have placed special pressure on the Team members, most notably the AFS and Agriculture Alberta representatives. Also, because little policy direction existed in regard to integrated planning in the area, due to the absence of a regional plan, special emphasis was required by Team members to liaise with their headquarters to develop policy decisions. Planning Team decision-making difficulties were increased when discussing policy related issues because regionally located Team members were often intimidated by the fact that other Team members, who were located at their

agency's headquarters office, were seen to have more direct contact with their senior policy decision-makers. Initially the Agriculture representative was from Edmonton as was the back-up AFS representative.

It is considered important that locally located regional staff act as planning Team members because of their practical management experience and knowledge of the planning area. Comments of those interviewed for the Jean D'Or case study indicate that it is also important that strict maintenance of the peer group concept is important in order to generate 'team spirit'. By the end of the Jean D'Or active planning steps all Team members were regional staff.

A significant impact of agricultural expansion in the planning area was on the AFS. Agricultural expansion affected both the AFS land administrative responsibilities and their resource management programs. Allotment of agricultural land use meant the end of a very long history of AFS administrative responsibility for the designated areas of land. Also, the AFS was initially concerned that loss of timber stands would result in the disruption of AFS's sustained yield management plans and related agreements with timber harvesters. Notwithstanding this, AFS demonstrated that it was strongly motivated to completely resolve allotment conflicts in order to permit their forest managers to develop and follow long term sustained yield management plans.

The strategy adopted by the Team Coordinator was consistent with the planning process established at the time: the method of orienting the Team to objective analysis of the situation and the ultimate land allotment policy

proposals was to utilize the land-use zoning techniques developed for East Slope planning. Thus, the Team immediately developed a resource use/zone matrix which could be used to allot lands for the full range of resource uses present and foreseen in the sub-region. Team members recognized the usefulness of this planning tool and accepted zoning as a technique to help develop a land allocation policy.

The matrix was easily and quickly produced. It included three zones:

1. an agriculture dominated multiple use zone
2. a forestry dominated multiple use zone
3. a special protection zone (for unstable slopes).

The resource uses permitted in each of the multiple use zones were relatively straight forward and changed little over the course of the planning exercise. Table 5.1 illustrates the final form of the Jean D'Or resource use/zone matrix. What the matrix only subtly illustrates is that Fish & Wildlife essentially view the Agriculture zone as unsuitable for wildlife and generally trust the AFS to manage forestry lands such that wildlife will be well enough protected through regular referral practices and good judgement on AFS's part. Fish & Wildlife management efforts will be focused on the Special zone where most of the proven habitats are located.

A suggestion that the matrix and use of the resource use zones diffused the issue of administrative zone re-allocation was not supported by the views of the Team members as expressed in the interviews or in their development of policy options.

Table 5.1

Resource Use / Zone Matriz - Jean D'Or Prairie Area

USES / ZONE	Agriculture	Multiple Use	Special Use
Recreation	/	/	R
Hunting	/	/	/
Fishing	/	/	/
Trapping	/	/	/
Timber Harvesting	R	/	R
Till Cropping	/	X	X
Domestic Grazing	/	R	X
Petroleum and Natural Gas Exploration & Development	/	/	/
Coal and Mineral Exploration & Development	/	/	R
Sand and Gravel Exploration & Development	/	/	/
Transportation and Utility corridors	/	/	/
Commercial Development	/	R	X
Residential	/	X	X
Industrial Development	/	R	X

/ - Permitted - Resource uses that will be permitted under normal guidelines and regulations.

X - Not Permitted - Resource uses that are not compatible with the resource management zone and are therefore, not permitted.

R - Restricted - 1. Resource uses that may be permitted under stricter than normal guidelines and regulations;
2. Resource uses that may be permitted, but only in designated areas within the zone.
3. Not all activities of the resource use will be permitted within zone.

As a consequence of the Jean D'Or experience the use of the Resource Use/Zone Matrix outside of the East Slopes has been de-emphasized and is not part of most non-Eastern Slopes plans.

The first step of allocating land to one or the other use zones was to list resource use objectives. The second step was to allocate land to the various zones utilizing the ELC land capability rating data. Each Team member did this separately. Having done this, the Team collectively identified the conflict areas and discussed the various ratings of those particular lands.

Next, this the allotment scenarios were simultaneously taken to the Team member's agency for analysis of the impact that each allocation proposal would have on resource sector objectives that the member's agency had identified. Headquarters involvement increased at this point. It was especially intense for the AFS Integrated Planning Division which has responsibility for coordinating timber management, fire protection, recreation and reforestation programs in regard to integrated plans. Similarly Agriculture headquarters support of the planning activity grew. There had not been a coordinating office in Agriculture to provide support to their Team representative when the Jean D'Or planting began. However, the Land Use Branch was established in 1980 and has developed many support tools since then.

Despite considerable efforts to negotiate and analyze the various agencies perspectives, no compromises were initially possible. Consequently three policy options were described in the Policy Alternatives document delivered to RIC and no recommendations regarding choice of the options was

made. The options represented the differing positions of the AFS, the Public Lands Division and the Agriculture Department. Differences were based on opposing interpretations of the lowest agriculture capability rating that seemed reasonable to include in an allocation for agricultural expansion. It took six months, considerable negotiation and compromise at the RIC level of decision-making before a new agricultural capability rating was assigned to the lands and a minimum level was agreed upon and specific lands were allotted to specific resource zones.

The Plan Policy document that emerged identified the Broad Resource Objectives, the Statement of the sub-region's Management Intent, Definition of the Resource Management Zones and the Land Allotment Policy which very closely reflected the ultimate Administrative Boundary and Agriculture Expansion Proposal contained in the final Draft Plan. This configuration was based on the new compromise ratings and professional judgements regarding the practicality of extending access and developing infrastructure to particular areas of the sub-region.

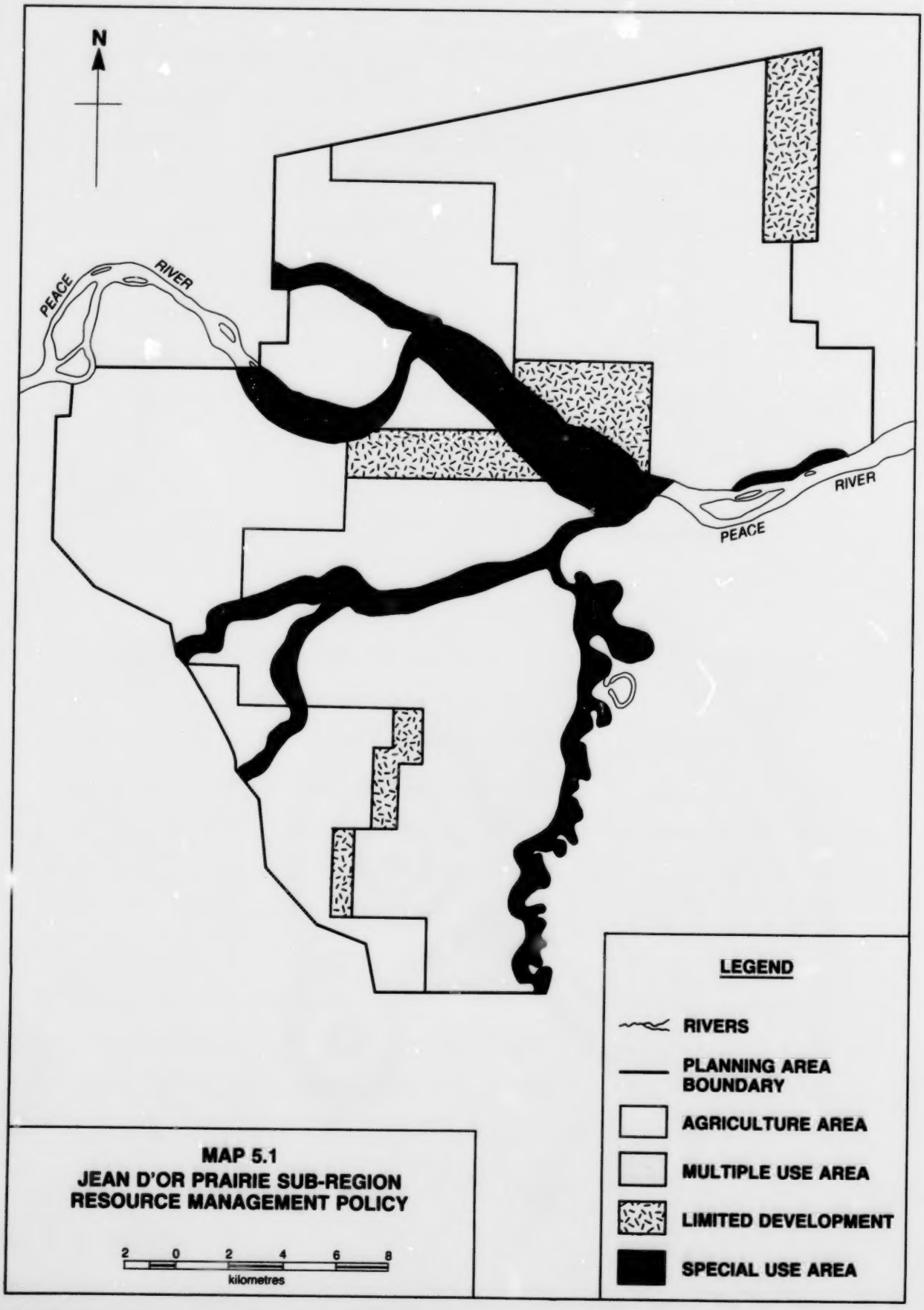
Given the length of the delay, the difficulty in reaching an agreement on the ratings issue and the emphasis laid on quantitative evaluation of land capability, it might appear inappropriate that the final policy is not explicitly explained in quantitative terms with specific references to ratings, infrastructure costs and the like. It must be accepted that considerable subjectivity is included in establishing allotment of land based on scientific data. Resource management data was, and will continue to be incomplete and unable to support fully quantitative modelling. Consequently

professional judgement and workable inter-agency compromises are valid and necessary elements of an integrated resource development plan.

What might better be questioned is whether the policy options proposal might not be more efficiently dealt with through referral to more senior level mechanisms than a director level mechanism such as the RIC. Policy decisions are, after all, within the realm of senior management responsibilities. Not only are senior level mechanisms more able to quickly make such decisions, the fact is that in the absence of pre-established regional and provincial level policy direction director level mechanisms do not normally have the depth or power to take such decisions. The long delay in making the necessary decisions discussed above suggests that the RIC did not believe that it held the authority to make such decisions and did so only because more senior approval mechanisms were not available to them.

At the outset of the Policy Alternatives Step the Planning Team had decided not to utilize the RMA planning tool. The Team had decided that the Jean D'Or sub-region was too small and too homogeneous in its physiography to require division into smaller planning units. However, in an attempt to resolve the stand-off the RIC introduced modified RMA sub-units or land allocation zones which they called "Limited Development Areas". These Limited Development Areas were included in the final Plan Policy document.

These Limited Development Areas (LDA's) identified the highest conflict areas that AFS and Agriculture continued to disagree on. The LDAs (see Map 5.1) were located in the Multiple Use Area. The LDA's represented an attempt to provide for phased agricultural conversion of valuable forest land.



MAP 5.1
JEAN D'OR PRAIRIE SUB-REGION
RESOURCE MANAGEMENT POLICY

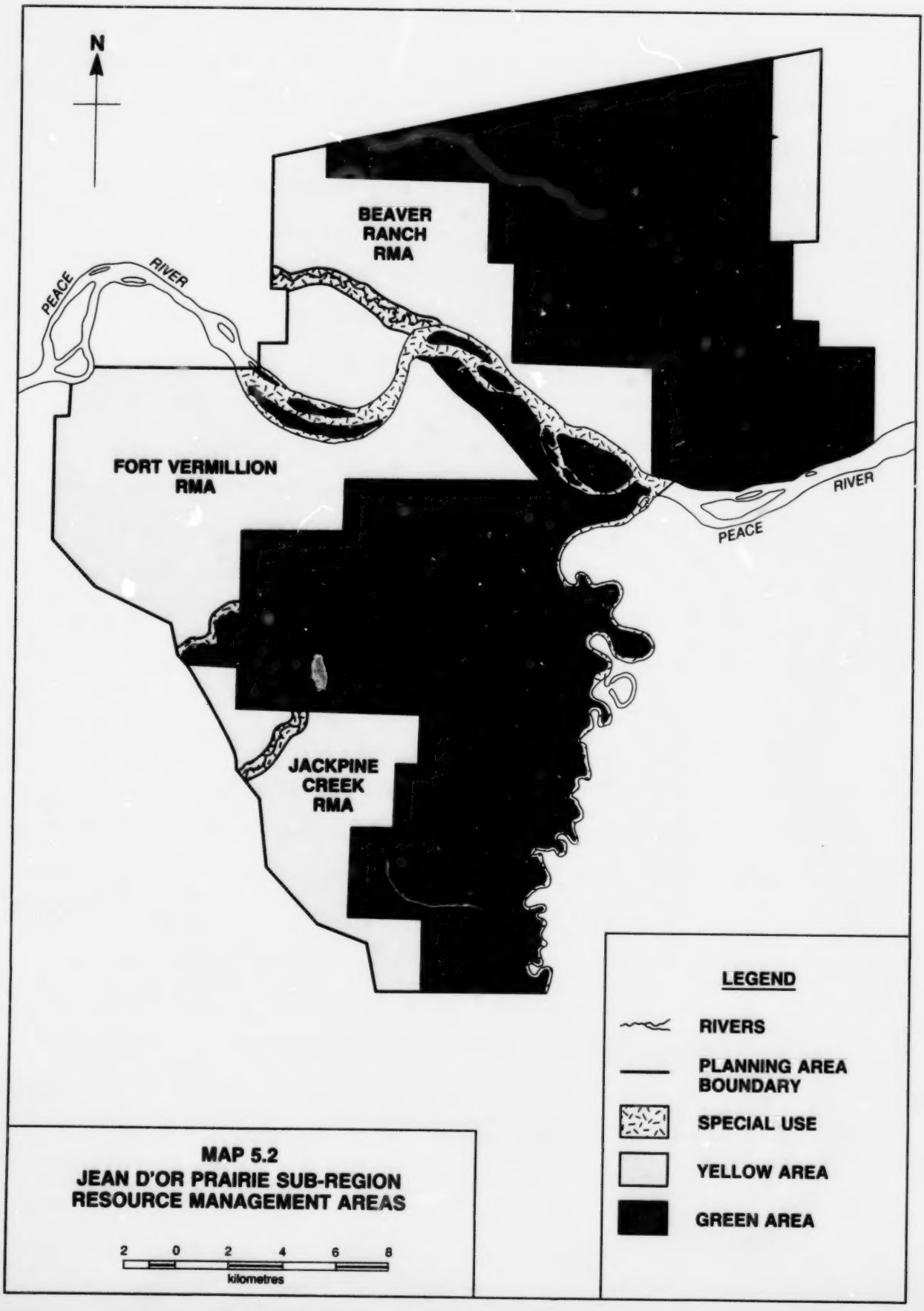
They were described in both the Multiple use and Agricultural zone descriptions. Under the Multiple Use heading they were described as lands that "would be examined more closely at the Plan Design Stage". Under the Agricultural Zone heading they were described as lands that would be subjected to expansion after the Agriculture Zone had been "utilized to its fullest". The understanding was that until conversion occurred the lands would remain in the Green Area and continue to be administered by AFS and that areas would continue to be included in the AFS management plans of the sub-region.

5.5 Plan Design

Following the introduction of the quasi-RMA concept in the form of the Limited Development Areas the AFS attempted to help resolve conflicts by replacing the Resource Management Zones with Theme Areas. Theme Areas were similar in concept to RMAs. This attempt ultimately concluded in the formal re-introduction of the RMA concept by the RIC.

The RIC directed the Planning Team to adopt the use of the RMA concept and the Planning Team divided the sub-region into RMAs and assigned management intents to them. Like the Theme Area suggestion the RMAs followed the Resource Management Zone boundaries.

After six months of planning six RMA's were defined by the Team (see Map 5.2). Each RMA had been assigned its own management intent resource sector management objectives and associated guidelines. The Team members were satisfied because the RMA's conformed with their agency's management and administrative units and provided explicit and easily recognized guidance to



MAP 5.2
JEAN D'OR PRAIRIE SUB-REGION
RESOURCE MANAGEMENT AREAS

the land and resource managers and land disposition staff. The Team Coordinator was satisfied because he had successfully encouraged the Team to consider the capability of the land in the design of the RMA's and had been able to produce an outline for a draft plan only six months after initiation of the Plan Design.

Although the Resource Management Zones was de-emphasized as planning tool of the Policy Alternatives step the Special Use Zone was retained in the Jean D'Or Plan Design. The Special Use Area of the Jean D'or Plan serves to preserve the nesting benefit of using both the RMA and Zone Concepts as was demonstrated fully in the Castle River study (3.7). When Special Use Area was located in on RMA it was noted in the RMA objectives and appropriately reflected in the Management guidelines.

5.6 The Draft Plan

The Draft Plan has undergone several changes in details and was, at the time of the interviews, being revised and readied for submission to the Cabinet Committee. The changes in the document, as will be described, were the result of its review and approval by the full list of review and approval mechanisms described in subsection 3.2.4. Also, because of the timing of the Associate Minister's decision to include public review in the process, the Jean D'Or draft plan was subjected to a full public review.

The basic contents of Draft Plan include the following:

- Management Intent statement for the sub-region, namely to make public land available for agriculture expansion.

- Broad, sub-regional, resource sector objectives and associated guidelines; including such sectors as: Domestic Grazing, Ecological Resources, Fisheries, Historical Resources, to name a few.

- Resource Management policy statement dominated by statements briefly describing the purpose of area and the original Resource Zone map which identifies an agriculture area, a multiple use area, and a special use area. Included in the first two Draft Plan documents is a classification called 'Limited Development' which is superimposed on portions of the multiple use area. The resource use/matrix is not included.

- Map of the RMAs and the Special Use area and a listing of associated specific management intents, resource objectives and resource management guidelines for each RMA.

- Map identifying the defined Yellow/Green Areas.

- An implication section that outlined the costs associated with the plans.

The de-emphasis of the resource zones as a planning tool in the Jean D'Or exercise is evidenced by the absence of the resource use/zone matrix and the nomenclature change from zone to area. Resource Policy statements that describe each area are brief statements that generally describe the dominant resource activities intended for each.

As already discussed, the Limited Development Area represented an attempt to resolve an AFS-Agriculture conflict over conversion of particular land areas. The AFS representative had wanted to protect significant immature white spruce stands, if possible, until they reached maturity. It was possible that a long delay of conversion of these lands might succeed in letting the trees grow large enough to be industrially valuable. However, these Limited Development Areas were deleted during a review of the plan by the RIC on the grounds that the public had difficulty understanding the Limited Development Area concept and that it might be easier for the forest manager to simply accept the loss of the immature stands and work with stable,

if slightly smaller, land base. While there was some disappointment at their absolute loss there was also general satisfaction that a decision had been made to resolve the problem. Such was the price of compromise and a more stable Green Area boundary.

Land and Resource Managers interviewed in the Jean D'Or area were all satisfied with the RMA guidelines and noted that a major benefit of the planning exercise was the development of a better understanding of the others' perspectives and needs. Most were confident that resource management had improved considerably as a result of the exercise. Particular satisfaction of use of the RMA concept was expressed. Most important to those interviewed were the boundaries and the guideline statements. Because the RMA boundaries coincided with day to day administrative work the guidelines of importance were easily identified. Many found the guidelines particularly useful and all agreed that they contained meaningful statements.

Somewhat paradoxically most of these same clients of the plan also noted that they did not find the plans would affect their day to day operations significantly. They felt that the existing guidelines connected with the Referral System of management being practiced in the region covered most, if not all of the statements on management included in the plan. When further questioned, it was acknowledged that the planning process had influenced the development of the Referral System which had experienced most of its development after integrated planning had been initiated in the Province.

Most of those interviewed felt that the major contribution of the plan was the definition of the Green/Yellow Area boundary.

The Removal of the Limited Development Areas meant that these lands were unconditionally allocated to the Yellow Area. The isolated Limited Development Area located beside the Jean D'Or Prairie Indian Reserve in the extreme northwestern corner of the sub-region became the Lawrence River RMA. The other four Limited Development Areas became part of the original three RMAs located in the Yellow Area along the western edge of the sub-region.

In order to compensate for the change and provide some guidance that may allow some of the more valuable forest resources to be utilized all RMA's have management intent statements that require the allocation of lands to agriculture recognize "the integrity of other existing resources". Also, guidelines for the RMAs were designed to identify and protect mature stands for five year renewable terms until the timber supply is exhausted by harvesting by local residents. Further, the Lawrence RMA is directed to have a lower priority for development relative to other agriculturally oriented RMA's.

5.7 Economic Impact

The final section of the draft plan introduces and briefly analyses the financial implications of the plan. A cursory outline of the monetary benefits were also included. This is the first time such a thing had been included. Many involved with the plan had realized that the implications of the policy that had been adopted by the Planning Team and RIC had to be addressed and made clear to more senior approval mechanisms. This final section has been viewed by participants as the catalyst that triggered the

Associate Minister's call for the preparation of an economic impact analysis for the Jean D'Or plan and all other integrated plans. The results of the Jean D'Or impact study were still being developed and had not yet been included in the new Draft Plan document at the time final interviews were being conducted.

Description of this case study has focused on the AFS and Agriculture conflicts of interest. It would be remiss not to acknowledge the significant impact the Plan will have on Alberta Environment department's Water Resources Branch and Alberta Transportation.

The implications section of the Plan (December 1983 version) indicates that in order to fully implement the Plan there will be considerable drainage and infrastructure construction costs incurred. The Plan will likely cost:

- $8 million in drainage related costs,
- $5.5 million for trunkline access roads, and
- $4-6 million for road grids.

Although Alberta Transportation was consulted by the Planning Team and contributed to its planning activities, there was no "full participation" Transportation representative on the Planning Team. As noted the Water Resources Branch represented Alberta Environment as a full participant team member.

After the plan had been endorsed by the Natural Resources Coordinating Council it was presented by the Deputy Minister for ENR to the Associate Minister. Spurred by the implications section of the draft plan and the current economic problems being experienced in Alberta in general and in agriculture in particular, the Associated Minister responded to the draft plan by requiring a detailed economic impact analysis. The final outcome of this requirement is not fully known at this point.

A financial income and employment analysis has been completed by a private consultant. This analysis examines financial implications of plan implementation. The reaction of the Associate Minister to the extent of the analysis is not yet known and will undoubtedly be influenced the reaction of the Cabinet Committee when the plan is presented for final approval.

The request for a financial impact analysis was not limited to the Jean D'Or plan; indeed all other plans currently underway will have to include such an analysis. It is too early to know how exactly this requirement will be incorporated into the planning process.

5.8 Public Involvement

When the Jean D'Or plan was initiated it was not government policy to include the public in the planning process. Public interest groups were informed that a plan was being undertaken and were invited to participate as

consultative team members. Involvement was limited to the presentation of resource objectives and issues to the planning team and to review of the planning documents after they had been prepared.

It was during the development of the terms of reference that the existence of Alberta Integrated Planning Advisory Committee (AIPAC) was announced. Initially the role of this committee of public interest group leaders to review the system, policies, processes, and programs was linked to the participation of the interest groups at the team level. However a few months after the interest groups had appointed planners as team consultants the link between AIPAC and the planners was cut. AIPAC was only to deal with big policy issues. This left the consultants without any outlet for their criticisms. The interest group team consultant planners had to be satisfied primarily with a special liaison relationship with the Planning Team Coordinator and the fact that they were able however to present issues to the RIC committee through the Team Coordinator.

Public participation took a slightly different turn after the District Agriculturalist (DA) for the Fort Vermillion area became a participating team member. The change in the level of participation appears to have been a consequence of the fact that the DA, in his normal work duties, was the vice-chairman of the Agricultural Development Committee (ADC). In fulfilling this role, the DA was required to keep the ADC members aware of government activities concerned with agricultural development in the area. As a result of the response of the ADC members the district agriculturalist adopted the position that any land capable of agricultural use should be included in the

agricultural zone. It was as a result of this position that the new agricultural land capability study was initiated.

The far reaching nature of this involvement of a grass roots local authority in the Jean D'Or Plan (and similar involvement in other plans) may have encouraged the ENR Associate Minister of Public Lands and Wildlife to direct full participation of the public in integrated resource planning. Once the draft plan had been endorsed by the Natural Resources Advisory Committee the Resource Planning, Branch of REAP initiated a full public involvement program for the Jean D'Or plan.

Since agricultural expansion was the prime planning issue public interest was largely limited to local citizens and public interest groups. As a result public involvement occurred at a public meeting in which the plan was described and the members of the Team and the Peace River RRMC made themselves available to answer questions during an Open House and a more formal panel discussion at the Information Exchange Session.

In order to prepare the public for the open house, an information newsletter was directly mailed to all those affected by the plan (in and near the planning area). Newspaper ads in Peace River, Fort Vermillion, and High Level also announced the open house. Although the draft plan had been fully developed and it was difficult to involve the public at this late stage some improvements of the plan were inspired as a result of the public meetings. Since the Natural Resources Coordinating Council (NRCC) had not yet endorsed the draft plan suggestions made by the public were presented along with a

summary of the Draft Plan. Some of these recommendations were included in a revision of the draft plan that resulted from the NRCC review.

PART THREE

- SYNTHESIS -

6. EVALUATION

The following evaluation of the development and application of the IRPS focuses on the role of planning as a land resource management aid. Emphasis has been placed on the use of the planning system as a means to direct and otherwise influence the management practices of the land and resource managers.

The dominant users of the integrated plans are the land and resource managers of the Alberta Forest Service, the Public Lands Branch, and the Fish and Wildlife Branch. The Resource Evaluation and Planning Branch, because of their role in assisting the implementation, coordination and review of the plans, should also be considered as users. Programs of other provincial agencies, such as Environment's Water Resources Branch and the Transportation Department are often strongly influenced by the plans.

There are a great number of ways to list the essential elements of good land planning. Many have listed the concepts or principles of importance. This evaluation will begin by discussing IRPS's own list of six principles, already introduced in section 3 of this report.

6.1 General Planning Principles

Four of the six IRPS principles can be grouped and identified as sound general planning principles common to most advanced types of public land resource planning. Briefly stated they are:

1) flexibility
2) rationality
3) comprehensiveness
4) meaningful public involvement

6.1.1 Flexibility

> "Planning should be dynamic and flexible so that it can adapt to changing needs and circumstances. Plans are an aid to decision-making and should be revised as better information or new circumstances warrant. Planning is a continuous, sometimes repetitive process of decision-making."-IRPS principle #1.

The sound idea that plans should be revised as new information or circumstances warrant was firmly reflected in the Castle River example with the full reformulation of both the plan policy and draft plan documents. This example demonstrates that the flexibility principle must apply to both the plan and the planning process. It is relatively easy to draw a flow chart expressing the idea that some steps may be repeated; this only requires the drafting of a small arrow looping back to a previous box. It is quite another thing to give the appearance of abandoning years of work by beginning again. Perhaps the Castle River example was being thought of when the term "dynamic" was being added to the flexibility principle definition; "fearless" might have been equally appropriate.

While the courage to change course and repeat major planning steps is a laudable commitment to and expression of the flexibility principle, the cost was significant in both time and dollars. Also, delay in having a plan ready for implementation generates considerable disenchantment in those managers waiting for direction. This is especially dramatic when, at the same time,

the managers are fearful that their power to make decisions will be eroded. The changes in the Castle plan appear to have been necessary. The final product is seen by the resource managers as being a appropriate and helpful.

Whenever possible flexibility should be built into the plans to accommodate changes in circumstances and the introduction of new information after the plans are in place. It would appear that the attempt to accommodate conflicting uses through the use the dominant management intent statements (as opposed to relatively inflexible priority lists) maintains an acceptable level of flexibility in regard to lands that remain in the Green Area. The Review and Revision steps of the overall process will also offer considerable flexibility.

Flexibility can also be a problem. Allowing too much flexibility in the application of a planning exercise can prove detrimental. If proven tools are discarded the efficiency of the planning exercise can be reduced if the tools are not replaced. It appears that this was true for the Jean D'Or planning team. When they discarded the RMA concept in the early stages of the planning exercise they were left without a universally acceptable planning structure to resolve the allocation conflicts which arose later. They also discarded the zones and were unable to design a new concept that suited. In the end resolution of the planning difficulties was found with the reinstatement of the RMA concept.

Although it is unlikely that all of the problems would have been avoided had they always worked with the RMA concept it is probable that their task would have proved easier.

Training of participants prior to participation in the planning exercise may avoid similar problems in future plans.

6.1.2 Systematic Steps

> "Efficient resource management is dependent upon a rational approach to planning. It requires a logical decision making process to ensure appropriate action for resolving all types of management issues." IRPS#2

The seven logical and systematic planning steps outlined in section 2 of this report were followed in both case studies. The basic idea that Information-Option-Choice be contained in these steps was realized during development of the examined subregional plans and satisfies the requirement for a rational approach to planning.

Although the structure is followed one must still expect problems in successfully developing decisions in a logical and systematic way. In the Jean D'Or Prairie planning, for example, it was questioned whether the agriculture capability ratings should have been changed after the plan policy step had developed initial options. One can argue that it was inappropriate that agriculture land capability ratings be biased in favour of agricultural expansion on the basis of the technical ability to improve the soil capability. Biasing the data in this way appears to have assumed the

acceptability of high levels of investment required. Just because the objective of the planning exercise was to identify agricultural land it does not logically follow that unimproved non-agricultural capability ratings should be compared to improved agricultural capability ratings.

Had the team members followed the existing structure more closely and all involved themselves more fully in the initial calculation of capability ratings the problem may have been more easily resolved.

Establishment of a soil degradation rating classification might have been a more appropriate contribution to the logical and systematic allocation of new agricultural land areas.

The review and approval process and it's mechanisms are also part of the rational approach. The inclusion of the higher policy level mechanisms, NRAC and NRCC, (the Assistant Deputy Minister and Deputy Minister committees) in the approval process was clearly required. This improved the ability of the system to logically deal with the full range of issues and questions in the development of an integrated resource plan. The identification and resolution of policy issue problems as discussed in the Castle River case study demonstrates the need to answer policy questions in order to support logical plan development.

It would appear that an unavoidable consequence of the many levels of approval is that great amounts of time are taken to resolve issues, answer the questions and approve plans. Major issues and plan approvals appear to require 2 to 4 months; especially difficult issues have taken 6 months and longer: two of the nine issues raised by the Castle River Team still remain unanswered. One of the policy questions concerning definition of the intent of the Critical Wildlife Zone (Zone 2) was only fully resolved with the revision of the Eastern Slopes Policy in August, 1984. Development of a way to shorten the time delay would be highly desireable.

Other aspects of the system's rational planning process also create time delays. The policy level mechanisms' approval (ADM and DM level and Minister levels) preceed the final approval by cabinet committee occur only after the plan has already been developed to the Draft Plan Step. The problem here is that a negative decision (based on a policy issue) at this point in active planning will undo months of work at the Team and the RIC level and often require several more months to accommodate the required changes. It would be an improvement therefore, if one or more of the senior policy review levels, were involved in planning step approvals prior to the Draft Plan step. Indeed this might also go a long way in relieving the other problems just discussed.

RIC members indicated that they were attempting to have the planning process revised to include ADM level approval in the earlier stages of the Draft Plan Step and in the Plan Design step as well.

6.1.3 Comprehensive Framework

> "Resource planning should be undertaken within a comprehensive framework, Since it involves progressive refinement of management decisions, a comprehensive framework is needed to facilitate the development of plans at appropriate levels of detail and emphasis". IRPS principle #5

In fulfillment of its requirement for a comprehensive framework the IRPS has identified four hierarchial levels of planning: Provincial, Regional, Sub-Regional and Local. This report has examined two of the several sub-regional plans that are being developed. As of January 1984 none of the major sub-regions plans had been given final plan approval by the Cabinet Committee. Two local plans had been completed and implemented but only one regional plan, the Eastern Slopes Policy, has been completed. The Eastern Slopes Policy is the only Integrated Resource Plan to have received Cabinet approval. Except for the Coal Development Policy there are no Provincial level plans or IRPS policies to guide the integrated sub-regional plan development. The underdevelopment of regional and provincial level plans and policies is a significant weakness of Alberta's IRPS.

RIC members acknowledged the importance of a gap in regional level planning by directing the 1984 and 1985 planning program to emphasize the development of regional plans. Many RIC members noted in the interviews that Jean D'or Prairie Planning Team had to develop basic regional resource objectives before they could proceed with the planning of the sub-region. Some of the more critical comments made by Planning Team members referred to the lack of Provincial level planning by labelling their integrated planning experience as "bottom-up planning".

The logical break between the Jean D'Or Prairie Terms of Reference, which did not identify a dominant management intent, and the Jean D'Or Prairie Plan Policy document, which established the management intent as the identification and disposition of public lands for agricultural use, can be partially explained by the underdevelopment of the regional and provincial levels of IRPS planning.

Notwithstanding the fact that some issues and policy questions remain unresolved sufficient direction has been given to the Planning Teams to complete the integrated plans in a meaningful, proactive fashion that addresses and resolves conflicts in land use. As the history of these directives continues to lengthen the main problem may become consistency. A readibly accessible reference system containing decisions taken by the decision-making mechanisms may circumvent the problem.

The problem of defining the "appropriate levels of detail and emphasis" is an important one. In as much as "integrated planning" often conjures up the image of an all inclusive planning especially when dealing with something as fundamentally important as land resources - it has been difficult for planning team members to know where to stop. In the two plans studied reference to different instructions on the appropriate detail for integrated sub-regional plans were observed. Early direction in the Castle River example called for considerable detail to solve resource use conflicts. Later direction in the Jean D'Or plan called for a minimum of detail that left regional managers with considerable flexibility.

In the Jean D'Or Prairie case the question of how to effectively utilize the wood stands excluded from the Green Area was resolved by providing conditional protection to mature stands commercial species and abandonment of immature and marginally economic stands. This guidance was in the form of 1) Specific Management Intent statements for RMAs, 2) Specific Resource Objectives for RMAs, and 3) RMA Resource Management Guidelines.

These statements, in their generic form are as follows:

1) The management intent of this RMA is to allocate lands for farmers, recognizing the integrity of other existing resources.

2) To provide a supply of primary forest products for use by local residents, recognizing special management conditions associated with the Special Use area.

3) Identification of areas supporting adequate volumes of mature timber will be identified for use by local residents (i.e. minimum 860 m^3/quarter-section: sawlog basis).

   Reservation of those areas will be for a maximum period of five years, or until the timber supply is exhausted. After the five year maximum period has elapsed, an option to renew the reservation should be included if the volume of timber is still sufficient to satisfy the user's needs. The option will be terminated when the timber supply is exhausted.

It was intended that the AFS would identify the areas but that it would not manage the land or include the timber in any forest management planning. It is strongly implied that renewal of the reservation is dependent upon the existence and request of a specific harvesting company or group that had purchased rights to the timber.

Given that off-farm employment is considered essential to successful pioneer farming in this marginal region and considering that considerable public funds must be invested to establish agricultural expansion into these regions greater attention to the identification and satisfaction of long-term seasonal employment demands might have been appropriate. Also the plan might have attempted to avoid the abandonment of the immature stands of commercial tree species.

Perhaps these objectives could have been integrated into a plan outline that dealt with both the social demands for supplementary income, occupation and timber and the conservational demands for complete use of the entire commercial timber stands. AFS participation or leadership in a planned program designed to fulfill long-term off-farm employment needs and more completely utilize the existing and potential commercial wood stands of the allocated agricultural lands could have been recommended. AFS forest management planning need not be limited to the Green Area.

A plan with these extra social, economic and resource use considerations might be considered to be a more effective contribution to a 'comprehensive framework' for sustainable agricultural expansion.

It may be that the definition of the IRPS comprehensive framework planning principle would have to be changed to support the above speculation. Such a redefinition would need to make reference to the range of variables deemed comprehensive. It would also raise the status of the principle (as defined in this report) from the "sound general planning principles" category to the "special integrated" category (section 6.2).

It is worth noting, in this context, that the recently released Environment Council of Alberta report on maintaining and expanding Alberta's agricultural land base recognized that long-term economic viability of agricultural industry in the north was closely linked to opportunities for off-farm employment. These and other concerns were such that it was recommended that "northern agricultural land base expansion be limited to the fringes of existing agricultural settlements until more is known about potential expansion areas".[1]

6.1.4 Public Involvement

> "The planning for public lands and resources must involve the appropriate publics in a meaningful way. The products of this involvement will be better and more acceptable plans and decisions by government". IRPS Principle #6

The validity of this statement and the importance of public input into the two case study plans only marks the beginning of IRPS implementation of this principle.

Recent increase to the Public Involvement Program budget that accommodated the Associate Ministers explicit support of full public involvement have begun to bear fruit. As I write a public awareness and extension program has begun with the wide distribution of a detailed and informative 12 page brochure designed to introduce all Albertans to the IRPS, its role and how the public can become involved. The program will educate the

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1 Maintaining and Expanding the Agricultural Land Base in Alberta: Summary Report and Recommendations, Agricultural Land Base Panel, Environment Council of Alberta, December 1984 page 31.

public in order to enable them to participate effectively. It will also utilize the media to generate general public awareness of IRPS and specific awareness of plans being undertaken so that people can participate.

This level of effort being directed to the Public Involvement Program should raise public involvement to very significant levels.

Consider the following insight into public land resource planning:

> "The art of public planning, when applied to specific circumstances, frequently is based on a fundamentally different rationality than that underlying the notion of planning in the abstract. To survive, public decisionmakers must respect the demands of politically powerful constituency groups who can influence agency budgets, which are allocated without regard to the rule of planning or judicial reviews".[1]

In the final analysis it may prove that the public involvement program outweighs all other positive aspects of the IRPS. In as much as planning decisions must be politically, socially and economically acceptable the successful involvement, cultivation and education of an interested public will support long term application of the plan as well as the creation and maintenance of a good plan.

A very significant aspect of the IRPS public participation is the way in which all members of the public are treated equally. Knowledge and information are power, and the IRPS policy to treat members of the public

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1 Cortner, Hanna J. and Dennis L. Schweitzer. Op. Cit. p. 499.

equally seems to be a very hopeful means to ensure that quality land resource development plans are created and followed.

6.2 Integrative Planning Principles

Two special integrated IRPS planning principles were established to fulfill the system's role as a planning aid to integrated resource management. Briefly stated they are:

1) team approach, and
2) land and resource integration.

6.2.1 Team Approach

> "Integrated resource planning usually involves a team approach in which representatives of relevant resource agencies conduct the actual planning. The active participation of various agencies favours the commitment of these agencies to the achievement of planning recommendations."
> IRPS princ. 3

There are three important aspects to this principle:

1. Team membership
2. Shared decision-making
3. The agency commitment

6.2.1.1 Team Membership

The practical limitation of planning team membership to a small number of resource and land oriented agencies clearly focuses the objective of the planning on resource management. It is common that future or growth management planning limit the number of variables to those most important to the objective of the of the planning activity. It is also important to limit

the numbers of the Team to facilitate discussion and decision-making. It is at this point that the labels chosen for the IRPS begin to display their significance.

The name, Integrated Resource Planning System, reflects the objective: the integration of resource planning. Conventional land use planning is the basic tool being used to achieve integration of resource planning. Wise land use allocation may be a necessary and desired benefit of the integrated plans but successful resource management planning is the dominant objective. In other words, to be successfull the IRPS must first satisfy the needs of the resource managers who implement and are guided by the integrated resource plans. It follows therefore that the regional resource managers or representatives of the resource managers be part of the planning team. As a result planning team membership tended to be limited to a relatively small number of resource and land oriented agencies who focused on the objective resolving of resource management problems.

In the two case studies the participation of regionally located resource managers was not universal. In the early stages of each example some headquarters staff represented an agency however whenever possible regional resource managers were assigned to the planning team by the end of the planning exercise.

One insurmountable problem was that some agencies do not either have any or enough regional staff to directly fulfill the regional manager role as planner. This meant that the teams were composed of members that had different levels of familiarity with the specific regional land and resource

situation. Given the emphasis on professional judgement this would presumably have created some difficulties. Team members that were located and experienced in the locality being planned naturally believed that their judgement was more valid than the opinions of those experts who relied more on collected data and less on local practical experience. This problem is heightened by the fact that those with the least personal local experience were also those with the least responsibility to implement the plans. The perspective of many team members, and even some RIC members, is that agencies without responsibility for management of the land area should not have an equal say in defining the plan with those who do have such a responsibility.

On the other hand others pointed out that frequently those without direct resource management responsibilities only observed the decision-making activities and discussions when they weren't affected by the issue or hadn't anything to contribute. Some claimed that the presence of these land and resource professionals supported the decision-making process by contributing information, experience, ideas, analysis and objectivity.

It appears that the constant presence of the "non-responsible" land or resource professional helps to keep the individual proponent of an argument on track by encouraging rational and objective discussion. The presence of a neutral peer or group of peers helps discourage gamesmanship and other inappropriate aggressive and adversative behaviour which is a prevalent modern problem solving pattern in North American and European cultures.

6.2.1.2 Shared decision-making

In order that all resource perpectives be included it is necessary that all those participating in the active planning process have an equal voice. The decision making process must not discriminate against those agencies and representatives that have no direct management responsibilities. This shared decision-making rule of operation is essential to the realisation of integrated resource management. Despite objections the IRPS has succeeded in practising shared decision-making. Both case studies bore this out.

The dominant concept of shared decision-making is "consensus decision-making". "Concensus", is defined by the Director of the Resource Planning Branch of REAP as "general accord in effecting a purpose" not, unanimity.[1]

He goes on to explain that:

> "Our system accommodates dissenting views, and yet I am constantly amazed at how seldom this is a concern. Given time, a decision-making team eventually develops an individual character. The group learns to be considerate of each other's needs and objectives and, in effect, thinks as one with respect to the common goals of maximum benefits and effective resource management. This is manifest in a willingness to concede, or 'trade-off' with the resulting compromises or agreements in the form of a joint plan... "I am, constantly encouraged by the growing level of commitment to this approach by all participants at all levels".[1]

1 Wyldman, Op. Cit. p. 32

This opinion can be supported by an example from the Jean D'Or Case Study.

In the Jean D'Or Prarie example the AFS concern that particular stands of white spruce desired for agricultural conversion be protected by the plan until maturity was generally supported by the Planning Team as sound resource management practice. The dissenting agriculture position was that agriculture was a higher use and that since the land supporting the white spruce was near to existing agricultural lands it was economical and appropriate to develop it for agricultural use.

The dissenting opinion was represented at RIC by the Agricultural representative. The AFS member was informed through AFS's internal integrated planning support system and was aware of the AFS Team Members' view as well as the policy and regional level views of the AFS headquarters staff. In the end Agriculture withdrew its demand for the relatively high capable unstocked lands further from the existing agricultural lands in AFS giving up the stocked lands nearer to the agricultural lands.

Support for the compromise is based on the reasoning that it is better to avoid "leap-frog" development and that in terms of infrastructure development it is cheaper and easier to develop agricultural expansion on contiguous lands. Also, in regards to fire protection a checkerboard pattern of agricultural settlement is dangerous to wood stands. When converting the aspen forests to cultivated fields enormous long and high rows of piled stems and branches are dried and burned. The chance of one of these fires spreading to neighbouring forest land is great. Furthermore, in terms of a long term

AFS strategy to secure a stable forest land base the establishment of enclaves of agricultural land within forest reserve was considered unwise. The establishment of access to these enclaves would only encourage further expansion within the forest reserve to justify the high infrastructure construction costs.

Judging from this example it would appear that consensus decision-making does work to both share the decision-making process and to produce more reasonable and integrated land use plans.

6.2.1.3 Agency Commitment

The idea that shared decision-making during the planning aspect of management should be connected with a sharing of commitment during the organizing, directing and controlling aspects, appears fair and logical. It is not simple however. Delivering on implied commitments generated by an integrated resource plan creates two problems:

1) integration of an agency's internal planning system, and
2) integration of an agency's budget.

Some ENR Regional Directors indicated that it was often difficult to find the funding to satisfy some of the management guidelines generated by the plan. It appears that the most significant aspect of the problem is timing. The integrated planning schedules have not been especially well kept (none have yet been implemented) and consequently setting aside or requesting funds in advance of their need is difficult. Furthermore cautious government spending is now the norm in Alberta (and elsewhere) and increases in budgets

are not easy to acquire. The problem for "non-client" agencies such as Agriculture, Environment and Parks and Recreation is even greater. There is a strong, natural resistance to let "new" or "non departmental" planning processes influence budget setting. This resistance is ubiquitous throughout the government and tends to be stronger with those least involved with the IRPS. The same is true in regard to the adjustments of an agency's internal planning system and the setting of agency policy and program priorities in accordance with "outside" integrated plans.

There are many questions that remain to be asked in regard to budgets and agency plans. The IRPS proponents suggest that a process will be developed as necessary, as the questions and problems are identified.

The IRPS and the Integrated Resource Management (IRM) System are new government management tools and problems will likely persist for some time in regard to their implementation. However it should be pointed out that integrated plans only become official government policy after Cabinet Committee approval and Cabinet level decisions are great motivators of good will and cooperation. Furthermore the economic impact studies that are now being undertaken prior to submission of the plans to the Cabinet Committee should fully prepare the Cabinet Committee to deliver decisions that will be unequivocal and acceptable for all concerned.

It is quite possible, indeed quite likely, that the political government decision-makers will recognize the Integrated Management System as an effective implement for them to direct efficient government agency spending and program delivery. Associated appreciation of the role of the IRPS and its

hierarchial levels of planning will result in the full commitment of affected agencies and development of the provincial level of IRPS planning.

6.2.2 Resource and Land Consultation

> "Integrated resource plans are developed by various land and resource experts in-consultation with each other"
> -IRPS #4

The use of the word "experts" rather than "managers" in the above principle likely reflects the broad range of participant expertise involved in the IRPS. In addition to managers there is significant participation by planners and technicians. The land-resource conservation takes place both during the meeting of the IRPS plan decision-making mechanisms and during the individual internal agency and departmental liaison and planning support discussions.

The contributions of "land experts" to integrated resource planning is very significant. Land managers contribute a familiarity with land base and knowledgeable empathy to a wide range of sector resource perspectives. Land management is frequently an active integration exercise and consequently a wide variety of social economic and technical problems are dealt with by land manager as well pure resource issues. Land planners contribute experience with land use allotment problems, including data integration, spatial analysis, conflict resolution, and planning tool application. Land technicians offer the managers and planners the means of aquiring an appropriate and objective integrative basis for land use capability comparison and conflict and compatibility analysis.

Examples of the above contributions have been highlighted throughout the descriptive analysis the case studies. They indicate that the land-resource consultation processes is a well developed and integral part of the IRPS. Beside the plan itself, dominant products of the consultation include the various ELC related capability ratings, the ELC zone maps and descriptions, the land use zones and resource use/zone matrix, and the Resource Management Area (RMA) concept for resource intent planning.

ELC maps are particularly important because they establish relatively bias-free spatial units that are meaningful to all team members regardless of their resource interest and expertise. These basic ELC divisions can be used as the basis for interdisciplinary discussions of the pros and cons of resource use allocations.

Extrapolations from this basic data to produce resource capability maps and ratings are much less free of biases. It is important that ratings should either attempt to minimize biases or somehow balance biases. Improved capability ratings for one resource use, based on the application of land management techniques, should not be compared or used alongside unimproved capability ratings for another resource uses.

Judging from the Jean D'Or Prairie case study where some improvement of agricultural capability ratings was based on the application of land management techniques and used alongside unimproved forestry and wildlife ratings, the early and full involvement of all planning team resource specialists in the establishment of ELC based capability ratings should avoid rating bias problems. This would also promote time efficient planning.

It would appear that ELC data could also be used to produce ratings which focus on resource use sustainability (as opposed to capability). Soil degradation is a most important example.

6.3 Client Satisfaction

Both case studies were strongly oriented to public lands in the Green Area and resource management and use allotment. Consequently the dominant clients are the ENR agencies of AFS, Public Land Branch, Fish & Wildlife. Parks, Agriculture, and Environment were affected but to a lesser extents especially regarding management guidelines. Client satisfaction focuses on the plan and its contents as well as includes the planning process.

Regionalization of the ENR is an important aspect of the client satisfaction with the IRPS. Clearly the plans offer considerable guidance to regional planners and managers. The most frequent praise of the IRPS related to its direct and indirect reduction of regional interagency management conflicts. For example in regard to new developments, it is recognized that the interagency referral system that has developed along with the regionalization has benefited from the development of integrated resource plans. Many plans including the Castle River plan, have identified generic development and management conflicts and guidelines. Equally important is the identification of specific conflicts and issues and effective guidelines that are designed to resolve them. Regional managers strongly acknowledge the benefits that their operations receive directly through the support that the integrated plans give to the development of more effective and efficient operational plans. Sector production losses that sometimes result from

compromise were acknowleged as being necessary. Those interviewed believed that the plans did optimize the overall resource use.

Several regional participants in the IRPS remarked that the planning exercise was beneficial because it tested policies. As seen in the Castle River example policies established at various levels were shown to be in conflict and the planning process brought the conflicts to the attention of those responsible at the senior management levels.

The most frequent, complaint expressed by regional managers concerned time: Both the time required of the Planning team member away from his regular duties and the total elapsed time of the planning exercise.

The integrated planning exercise required so much time and energy that some participants felt they were not able to do justice to their regular job duties. Although feeling over-worked they did not feel that they were personally harmed in a career sense. The problem was that the programs to which they regularly contributed suffered from lack of timely attention. Full time secondment to the a Planning Team and filling the temporary vacancy could be beneficial.

The problem that resulted from the long duration of the planning exercise was that ongoing program delivery was delayed or interupted. Programs most effected were Crown Land disposition.

A less frequent complaint was that the absence of an orientation program that introduced planning team members to the IRPS increased the planning time since participants were forced to develop an understanding of the process and its application on their own. The AFS has responded to this problem by offering a 3-day course for all of its agency staff that will be involved in a planning exercise for the first time. Also, the agencies are now better able to provide backup and guidance to their representatives. Agriculture Alberta's new Land Use Division is an example of a new assistance program designed to deal with integrated plan development.

In summary, client satisfaction was high although some questions were raised about the balance of benefit and cost, the primarily cost being time.

6.4. Other Integrated Planning Principles

Thus far the evaluation has been limited to IRPS's own defined planning principles. The term integrated planning has been assigned qualities which are reflected in principles other than those already expressed. Academic circles tend to argue that government practice of integrated land planning is really only "comprehensive" planning. In an attempt to identify further principles for structuring final evaluation of the IRPS two recent academic sources have been tapped. The first is a recent master's thesis by Margaret Anne Kerr in which the IRPS is evaluated in terms of a concept of "environmentally responsive land use planning".[1] The second was the

[1] Anne Kerr, "Environmentally-Responsive Land Use Planning: The State of Art in Three Resource Regions of Canada" Masters Thesis, University of Waterloo May 1982.

publication Environmental Planning Resourcebook by Reg Lang and Audrey Armour.[1]

For Kerr, who undertook an academic evaluation of the IRPS and promoted "environmentally responsive land use planning", the important aspect "integration" seemed to be the integration of environmental evaluation throughout the land use planning process.

Kerr identifies two criteria or principles for environmentally responsive land use planning that were not included in the IRPS list. They are political commitment to the planning process and explicit incorporation of environmental planning and impact assessment concepts at each stage of the planning process. In regard to political commitment Kerr observed that commitment of funding and manpower to the planning process appears uncertain and that not everyone (agency) supports the need for a single planning process.

Today (1984) funding for public participation is strong and support for the system is very widespread although not absolute. Interviewers were often careful to note that none of the sub-regional plans have received political approval. While it is true that no sub-regional plans have been sent for Cabinet Committee approval, strong statements defining the existence of the IRPS in the 1984 Revision of the Eastern Slopes Policy did receive political approval. This bodes well for full acceptance of the IRPS in the near future.

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1 Lang and Armour, 1980. Environmental Resource Book. Multiscience Publications Ltd., and Lands Directorate, Environment Canada. Montreal.

In analysing the IRPS Kerr notes that explicit environmental objectives were not universally found and that an apparant "lack of emphasis on analysing alternative ways to achieve plan goals was a weakness in Alberta's planning Process".[1] She also argued that documentation of trade-offs, especially environmentally related trade-offs, was weak.

In interviews with members of Planning Teams many example of implicit considerations of environmental impacts of land allocation and uses were given. The concern expressed for the environmentally sensitive areas of the "front range" on the Castle River plan was one such example documented in sub-section 4.7 of this report. Nonetheless the implicit concern and consideration of environmental impacts does not match Kerr's call for explicit impact assessment. Her argument that there was a lack of alternative ways to achieve goals may be valid in many instances. It is highly likely however that many alternatives are discussed and considered in most Planning Team situations. Unfortunately, as Kerr also points out, documentation is weak.

Lang and Armour's publication[2] addressed the subject of environmental planning within a management context. In doing so a section was written on the "growth management" approach to management taken by some municipal governments. Much of the description and commentary in this section can be directly applied to Alberta's integrated resource planning system.

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1 Kerr Op. Cit. p. 148

2 Lang and Armour, 1980 Op. Cit.

Lang and Armour explain that growth management is concerned with the nature and quality, amount, rate, geographic location and demography of growth; the same prominent issues of the Jean D'Or Prairie planning exercise. They identify the main components of environmental planning as information and monitoring systems, plans and policies, impact assessment, regulation and review processes, fiscal measures, coordinated organizational arrangements and public participation and education. Each of these components have been identified in Alberta's integrated planning at various points throughout this report.

The basic nature of multiple resource and land planning and the particular environmental focus of part of the originating exercises of the IRPS justify discussing the IRPS in terms of environmental growth management planning which Lang and Armour's discussion focuses.

First, Lang and Armour observe that:

> "Because environmental problems are interrelated we naturally think of the ultimate ideal approach as one that is fully comprehensive and integrates all of the foregoing components. But, beyond small-scale problems, totally integrated action is likely to be impossible..."[1]

Clearly IRSP planning does attempt to deal with more than small-scale problems. However, it is less than total integration, as defined by Lang and Armour.

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1 Ibid. p. 234.

Lang and Armour's ideal list of environmental planning components include the call for social and fiscal impact assessment as well as environmental. The explicit assessment of fiscal impact has now been introduced to the IRPS process, albeit only as and add on feature thus far. Social impact is not yet explicitly addressed. Inclusion of fiscal and social experts on the Planning Team and other planning mechanism would seem appropriate and possible, given political commitment.

Expansion of environmental representation to better facilitate explicit environmental impact assessment might be done by strengthening the support given Environment's Water Resource Management representative to include integrated input from other branches of the Department of Environment. Again political commitment is an important factor and the very existence of the IRPS and its continued political support bodes well for possible further emphasis on environmental impact assessment.

Lang and Armour's observation continues:

> "... Usually too little will be known about the man-environment relations in question; control over actions affecting the environment of concern is likely to be fragmented and, for the concerned agency or interest, partial at best; and the required total commitment is highly improbable, considering conflicting interests and demands. "Integration" in practical terms, therefore, will mean operationally relating one initiative - say, a program to protect an environmentally sensitive area - to others that directly affect its chances of success (such as plans to encourage or control development near the E.S.A.), whether within the initiating agency's control or not.[1]

[1] Ibid. p. 234.

We have seen that data shortage is a problem in IRPS planning. Information and knowledge does need to be improved but this is not unique to the IRPS and it is difficult to imagine the problem ever being fully resolved. Reducing the fragmentation of control is a strong point of the IRPS and continued improvement in this area is likely if the expansion of the RRMCs to include non-ENR agencies continues successfully. The issue of total committment being highly improbable does continue to be a problem in the IRPS. However, it appears that significant gains have been made in regard to establishing multiple agency committment and cooperation in the development and implementation of plans.

Lang and Armour's concluding comments introduces an appropriate subject on which to end this discussion of Alberta's IRPS:

> "... Emphasis switches from total understanding and control to selected systemic action, attempting to gain understanding of and control over those key aspects of environmental and institutional systems necessary to achieve specific objectives, and maintaining ongoing surveillance leading to new actions and revised objectives. Under this approach "integrated" doesn't encompass everything. It is limited to those things that really count, in the given setting and it does not emerge all at once. More likely is a building-block strategy as one way to proceed gradually from immediate problem-response to larger sets of initiatives aimed at wider sets of environmental problems, at causes and not just symptoms, and at preventive as well as corrective action."[1]

[1] Ibid. p. 234.

Integrated resource planning and management provided by Alberta resource agencies will likely succeed at gradually correcting the causes of resource management problems including wider sets of environmental problems. Alberta's example will likely help other provinces to initiate and develop their own successful integrated resource planning and management systems. However, success will only result if those that control the introduction of integrated planning remember to base their efforts on the establishment of a broadly based, concensus form of decision-making which includes the public and do not use speed as a criteria or measure of success.

An interesting aspect of Alberta's integrated resource planning experience is that it is not developed in accordance with any specific legislation but in response to problems arising from an overlapping set of uncoordinated legislation. And it appears that no attempt is being made to formalize the integrated approach in any new legislation.

While one of the strengths of the IRPS is that it is relatively free of the limitations imposed by guiding legislation this strength will bear no significant consequence without realizing some form of formal long term political commitment. It is of great consequence therefore that in June 1985, as this report was undergoing final revision, that the Jean D'Or Prairie integrated plan was endorsed by the Economic Planning and Resource Development Cabinet Committee.

Once endorsement for a number of sub-regional plans has been achieved the strategy of a 'building block' approach to rational, proactive resource land development will begin to bear fruit. The completion of regional plans and the continued nurturing and support of public involvement in the planning process will ensure continued benefits.

BIBLIOGRAPHY

Alberta Agriculture. 1981. Farming Potential of the Jean D'Or Prairie Area: An Economic Assessment. Frank Hanus P.Ag.. Resource Economics Branch. Technical Report (RE-11-13-81). Edmonton. Alberta.

Alberta Energy and Natural Resources. 1978a. Planning Proposal Castle River Planning Area. December 1977. Revised March 1978. Resource Planning Branch. Edmonton. Alberta.

_____. 1978b. Castle River Land District Map. H.G. Anderson. Resource Evaluation and Planning Division. Edmonton. Alberta.

_____. 1981a. Alberta Public Lands. Public Lands Division. Edmonton. Alberta.

_____. 1981b. Castle River Resource Management Policy: Alternatives. Castle River Integrated Resource Planning Team. Unpublished. Edmonton. Alberta.

_____. 1981c. Ecological Land Classification and Evaluation Jean D'Or Prairie. Wayne L. Strong. Resource Appraisal Section. Edmonton. Alberta.

_____. 1981d. Ecoregions of Alberta. Resource and Evaluation Division. Edmonton. Alberta.

_____. 1981e Integrated Resource Plan: Jean D'Or Prairie Sub-Regional Plan. Terms of Reference. June 1981. Resource Evaluation and Planning Division Edmonton. Alberta.

_____. 1981f. Integrated Resource Plan: Lower Peace River Regional Overview. Resource Evaluation and Planning Division. Edmonton. Alberta.

_____. 1982a Information Requirements for Major Developments Affecting Crown Lands and Resources Preliminary Disclosure. Approved January 1982. Amended December 1982. Edmonton. Alberta.

_____. 1982b. Integrated Resource Plan: Castle River Sub-Regional Plan. Resource Management Policy. Resource Evaluation and Planning Division. Edmonton. Alberta.

_____. 1982c. Integrated Resource Plan: Jean D'Or Prairie Sub-Regional Plan: Jean D'Or Prairie Sub-Regional Plan. Plan Policy. 1982. Edmonton. Alberta.

_____. 1982d. Integrated Resource Plan: Jean D'Or Prairie Sub-Regional Plan. Plan Policy. May 1982. Resource Evaluation and Planning Division. Edmonton. Alberta.

_____. 1983a. A System for Integrated Resource Planning in Alberta. Resource Evaluation and Planning Division. Edmonton. Alberta.

_____. 1983b. Integrated Resource Plan: Castle River Sub-Regional Plan. Draft Plan. August 1983. Resource Evaluation and Planning Division. Edmonton. Alberta.

_____. 1983c. Integrated Resource Plan: Jean D'Or Prairie Sub-Regional Plan. Draft Plan. August 1983.

_____. 1983d. Integrated Resource Plan: Jean D'Or Prairie Sub-Regional Plan. Draft Plan. December 1983. Resource Evaluation and Planning Division. Edmonton. Alberta.

_____. 1984a. Integrated Resource Management: Resource Management through Teamwork!. Resource Evaluation and Planning Division. Edmonton. Alberta.

_____. 1984b. Integrated Resource Plan: Castle River Sub-Regional Plan. Draft Plan. September 1984. Resource Evaluation and Planning Division. Edmonton. Alberta.

_____. 1984c. Jean D'Or Prairie Planning Project Information Newsletter. Edmonton. Alberta.

_____. 1984d. Principles and Proceedures of Integrated Resource Plan Implementation. Draft III. Unpublished. May 1984. Edmonton. Alberta.

Alberta Environment. 1982. Jean D'Or Prairie Integrated Plan Drainage Overview. Jean D'Or Prairie Option Background Document. Grande Prairie. Alberta.

Alberta. Government of Alberta. 1977. A Policy for Resource Management of the Eastern Slopes. Edmonton. Alberta.

_____. Government of Alberta. 1984. A Policy for Resource Management of the Eastern Slopes. Revised 1984. Edmonton. Alberta.

Alberta Wilderness Association. 1984. "A Policy for Resource Management of the Eastern Slopes: Revised 1984 - Rejected". Alberta Wilderness Association Newsletter. Vol. 14, No. 4, late fall 1984.

Bigsby, Hugh. 1983. Land Values for Forestry in Northern Alberta. Prepared for Alberta Energy and Natural Resources. Edmonton. Alberta.

Canadian Society of Environmental Biologists Alberta Chapter. 1983. Resource Management in the Eastern Slopes. Symposium Proceedings Red Deer, Alberta. March 19 1983. Edmonton. Alberta.

Environment Conservation Authority of Alberta. 1974. Land Use and Resource Development in the Eastern Slopes. Report and Recommendations. Edmonton. Alberta.

Environment Council of Alberta. 1984. Maintaining and Expanding the Agricultural Land Base in Alberta. Summary Report and Recommendations. Edmonton. Alberta.

Fardoe, Brian K. 1984. "Integrated Resource Planning the Alberta Experience": in Proceedings of the 1984 National Conference of the Canadian Institute of Planners.

Kerr, Margaret Anne. 1982. Environmentally Responsive Land Use Planning: The State of the Art in Three Resource Regions of Canada. Master's Thesis. University of Waterloo. 257 p.

Krutilla John V. and John A. Haigh. 1978. "An Integrated Approach to National Forest Management". Resources for the Future Reprint Series. No. 156. Portland. Oregon.

Lang, Reg and Audrey Armour. 1980. Environmental Planning Resource book. Prepared for the Lands Directorate, Environment Canada. Lands Directorate, Environment Canada and Multi Science Publications Limited. Montreal. Canada.

APPENDIX A

A Complete List of Integrated Planning Projects initiated before June 1985

1 EASTERN SLOPES REGION
(Policy approved by Cabinet)

REGIONAL

2 LOWER PEACE REGIONAL OVERVIEW

3 ROCKY-CLEARWATER REGIONAL OVERVIEW

4 BERLAND REGIONAL OVERVIEW

SUB-REGIONAL

5 BIG BEND

6 NORDEGG - RED DEER RIVER

7 CANMORE CORRIDOR

8 CASTLE RIVER

9 COLD LAKE

10 COAL BRANCH

11 GHOST RIVER

12 KANANASKIS COUNTRY

13 LAKELAND

14 LIVINGSTONE-PORCUPINE HILLS

15 PEERLESS-GRAHAM LAKES

16 STURGEON LAKE - PUSKWASKAU EAST

17 SPRING CREEK

18 KEG RIVER

19 BRAZEAU PEMBINA

20 ROCKY-NORTH SASKATCHEWAN

21 JEAN D'OR PRAIRIE

LOCAL

22 WAPITI-GRANDE PRAIRIE SAND DUNESe

23 BEAVERHILL LAKE

24 POLL HAVEN

25 FROST HILLS

26 BEAR RIVER-WAPITI

GRAZING RESERVES

27 BEAR CANYON

28 BLACKFOOT (C)

29 FORT VERMILION

30 MANNING (C)

31 MEDECINE LAKE

32 ROCKY MOUNTAIN HOUSE

33 THREE CREEKS

34 PEMBINA

25 SANG LAKE

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LANDS DIRECTORATE

DIRECTION GENERALE DES TERRES

SUPPLEMENT TO WORKING PAPER NO.43

It has been suggested that a chart summarizing the integrated management process and a list of acronyms would assist the reader in conceptualizing the system of integrated resource management described in this working paper. Both are included in this supplement.

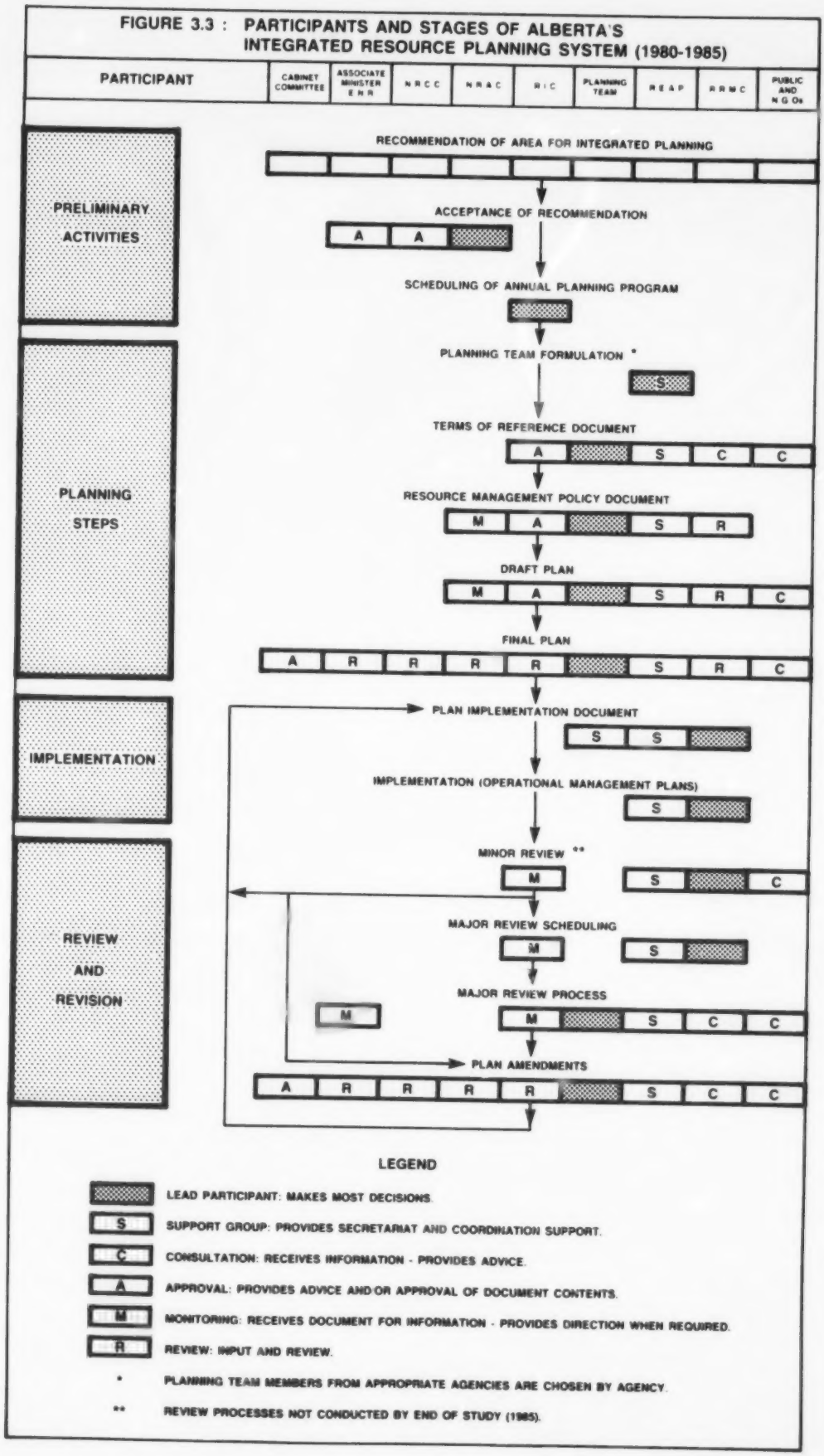
Figure 3.3 provides a graphic overview of Alberta's integrated resource management process. It illustrates the major sequential stages from planning area selection through plan preparation to implementation and review. It also identifies the participants involved in each stage and their role. Figure 3.3 should be inserted at the end of the summary of section 3 at page 68.

The list of acronyms has been named Appendix B and can be inserted at the end of the report. Alternatively it can be used as a bookmark to facilitate its use.

Environment Canada Environnement Canada

Canada

FIGURE 3.3 : PARTICIPANTS AND STAGES OF ALBERTA'S INTEGRATED RESOURCE PLANNING SYSTEM (1980-1985)



APPENDIX B

GLOSSARY OF ACRONYMS

AFS	ALBERTA FOREST SERVICE
AIPAC	ALBERTA INTEGRATED PLANNING ADVISORY COMMITTEE
CLI	CANADA LAND INVENTORY
ENR	ALBERTA DEPARTMENT OF ENERGY AND NATURAL RESOURCES
EP&RD	ECONOMIC PLANNING AND RESOURCE DEVELOPMENT (CABINET COMMITTEE)
F&W	FISH AND WILDLIFE DIVISION, ENR
IRPS	INTEGRATED RESOURCE PLANNING SYSTEM
NGO	NON-GOVERNMENT ORGANIZATION
NRAC	NATURAL RESOURCE ADVISORY COMMITTEE
NRCC	NATURAL RESOURCES COORDINATION COMMITTEE
REAP	RESOURCE EVALUATION AND PLANNING DIVISION
RIC	RESOURCE INTEGRATION COMMITTEE
RMA	RESOURCE MANAGEMENT AREA
RRMC	REGIONAL RESOURCE MANAGEMENT COMMITTEE